Building the Evidence on Forced Displacement

World Bank Consortium: The Big Questions in Forced Displacement and Health

Democratic Republic of Congo
Country Report
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The Democratic Republic of the Congo Country Report

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List of Acronyms

AAAQ	Availability, Accessibility, Acceptability, and Quality
ANC	Antenatal care
BPRM	US Bureau of Population, Refugees, and Migration
CBHI	Community-based health insurance
CHWs	Community health workers
COVID-19	Coronavirus Disease 2019
DHIS2	District Health Information Software 2
DHS	Demographic and Health Survey
DRC	Democratic Republic of the Congo
EmONC	Emergency obstetric and newborn care
EPSS	National Service Accountability Survey
FGDs	Focus group discussions
GDP	Gross domestic product
GFATM	Global Fund to Fight AIDS, Tuberculosis, and Malaria
GGHE	General government health expenditure
GIFMM	Grupo Interagencial sobre Flujos Migratorios Mixtos (Interagency Group of Mixed Migratory Flows)
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit
HCWs	Health care workers
HFAs	Health facility assessments
IDPs	Internally displaced persons
INGOs	International non-governmental organizations
IOM	International Organization for Migration
IRC	International Rescue Committee
ITN	Insecticide-treated bed nets
KIIs	Key informant interviews
MHPSS	Mental health and psychosocial support
MHO	Mutual health organizations
MoH	Ministry of Health
NCDs	Non-communicable diseases
NGO	Non-governmental organization
OCHA	United Nations Office for Coordination of Humanitarian Affairs
OFDA	US Office of U.S. Foreign Disaster Assistance
OOP	Out-of-pocket
PBF	Performance-based financing
PDSS	World Bank's Health Systems Strengthening for Better Maternal and Child Health Results Program
PMI	U.S. President's Malaria Initiative
PNDS	National Health Development Plan
PNPMS	Programme national de promotion des mutuelles de santé (National Pogram for the Promotion of Mutual Health Organizations)
RHA	Rebuild Hope for Africa
RMNCAH	Reproductive, maternal, newborn, child, and adolescent health
SGDs	Sustainable Development Goals

SNIS	Système National d'Information Sanitaire (National Health Information System)
SRH	Sexual and reproductive health
TB	Tuberculosis
THE	Total health expenditure
UN	United Nations
UNHCR	United Nations High Commissioner for Refugees
UNICEF	United Nations Children's Fund
WBG	World Bank Group
WHO	World Health Organization

Introduction to the *Big Questions in Forced Displacement and Health* Project

Displaced persons and host populations in fragile settings affected by conflict and violence are often inadequately served by equally fragile and dysfunctional health systems. These systems are quickly overwhelmed by the influx of large numbers of refugees and IDPs. In the acute phase of a humanitarian response, global implementing partners often navigate this challenge by establishing parallel systems for preventive and curative health services. In protracted crises, and where displaced persons settle in the midst of established host communities, the transition from acute humanitarian response to development support requires careful coordination to avoid duplication of services, inefficiency, or increased inequity and service gaps. At each stage, host country health systems may be present alongside services offered by non-state actors and private sector providers. It can be especially difficult for health service/program planners to anticipate and respond to health needs in such complex and pluralistic environments; and harder still for individuals and families to navigate and meet their health needs.

As the numbers of people displaced remains at historic levels worldwide, and as protracted crises become the norm, the global community is challenged as never before to find new solutions to dealing with this "humanitarian-development" nexus.

The report aims to address the following questions:

- What are the common trends, similarities and differences in the health needs of forcibly displaced populations and host communities in various geographical, social and demographic contexts of FCV countries facing protracted displacement conditions (beyond the initial emergency response)?
- What is the empirical evidence, lessons learned, and good practices, on optimal ways for host countries and development partners to be better prepared and to develop mechanisms to systematically identify, prioritize, plan and deliver health services at all levels of care for both host communities and displaced populations?
- What are the most cost-efficient mechanisms for financing health services for forcibly displaced populations and host communities?

A Note on Terminology

From its inception, the "Big Questions" study prioritized incorporating and representing various types of displacement in the study, including refugees registered with UNHCR, unregistered internationally displaced individuals, displaced Venezuelans, and internally displaced persons (IDPs). Throughout this report, the authors have utilized "displaced populations" inclusively to refer to any of the aforementioned communities. Additional clarification and differentiation regarding type of displacement is made when necessitated by the data or context.

Case Study Countries

Bangladesh, Colombia, the Democratic Republic of the Congo (DRC), and Jordan were chosen as case studies for this analysis in order to incorporate and assess a wide variety of contexts which may factor into health service financing and provision. The selection criteria included system of delivery (camp, rural, and urban settings), provider type (NGO, local health system), host country context (active conflict, fragile, post-conflict), income level (low income, lower middle income, upper middle income), and displacement type (refugees and IDPs). Our selection also reflects a diversity of geographic regions and differing national policies towards refugees and the displaced and incorporate considerations of data availability and feasibility.

Chapter 1: Background on Displacement in the Democratic Republic of the Congo

The contemporary history of the Democratic Republic of the Congo (DRC) has been marked by multiple and overlapping conflicts, both internal and international, that have shaped the humanitarian and displacement landscape in the country. Following the 1994 Civil War in Rwanda, the Rwanda, Uganda and Burundi militaries invaded Zaire in 1996, triggering a collapse of the government of President Mobutu Sese Seko. The invading forces established a new government and renamed the country the Democratic Republic of the Congo. The fighting that arose between the invading armies and internal armed forces from 1999-2003 likely led to the highest death toll of any war since World War 2.[1] Looting of minerals by the invading forces and their associates continued even after the Sun City Agreement officially ended the conflict in 2002.[2] Indeed, mineral plundering occurred at such a sweeping scale in the early years of the agreement that some years Rwanda, for example, took more value in minerals from the DRC than their entire GDP.[3] This extraction process has continued for decades, fueling rebel groups, and has led to massive levels of instability over the last quarter century in eastern DRC.[4] Discussions in the field suggest that despite the recent, first-ever democratic transition in the country, there still is no vision of how to end the instability in North and South Kivu and the expanding role and influence of armed groups throughout the eastern part of the country.

The DRC hosts an estimated total of 5.5 million internally displaced persons (IDPs), with an estimated 2.2 million people newly displaced due to the conflict in 2020, primarily in eastern provinces including North and South Kivu.[5,6] According to the Internal Displacement Monitoring Service, displacement "tends to be short but is often repeated," in part due to livelihood requirements limiting the distance individuals are willing to travel during times of displacement.[5] Most IDPs live with relatives, members of the same ethnic group, and church communities, with only a small minority seeking shelter in camps.[5] Given the fluidity of IDP movement as well as the infrequent registration of IDPs with local authorities – due to inconsistent registries, the lack of benefit to registration, and fear of potential fees enacted by local authorities— it is difficult to reliably determine the true burden of displacement.[7,8]

Conflict-related displacement has been increasing in recent years in the DRC. Just under 1 million individuals were newly displaced during 2016; between 2017 to 2020, that number hovered closer to 2 million, dropping only slightly to an estimated 1.5 million in 2021.[5,9] In addition, weather-related events have also increasingly caused displacements, albeit on a smaller scale; floods in 2019 and 2020 displaced significantly more individuals (137,000 and 176,000, respectively) than recorded in previous years.[5]

While most displaced individuals in the DRC are IDPs, the DRC also hosts approximately 530,000 refugees and asylum seekers, the vast majority of whom are from the Central African Republic and Rwanda. North Kivu hosts the greatest number of refugees (186,000) followed by North Ubangi (99,000) and South Kivu (79,000). Most refugees (72 percent) reportedly live in rural settings, while 25 percent live in camps and only 3 percent are in urban settings.[10] In its 2022 Humanitarian Needs Assessment, the UN Office for Coordination of Humanitarian Affairs (OCHA) estimates approximately 20 percent of the refugees identified with specific needs report having a serious medical condition.[10]

Despite the wealth of natural resources in the DRC, exploitation, extraction of resources by foreign entities and armed groups, and ongoing conflict has led to high rates of poverty throughout the country. The World Bank estimates 73 percent of the Congolese population, representing 60 million people, live below the international poverty rate.[11] The United Nations Refugee Agency's (UNHCR) 2022 Overview of Humanitarian Needs for DRC identified 27 million individuals living with acute food insecurity, with 43 percent of children malnourished. [9,11]

Access to healthcare remains a challenge, with the scope of health needs reflecting the protracted and complex nature of the humanitarian situation. No census has been conducted since 1984, making population estimates and health service planning exceptionally challenging.[12] Across both the host and displaced population, 8.9 million individuals are in need of greater health support, with only an estimated 30 percent of the population living within 5km of the nearest health facility.[9,13] Furthermore, only 27 percent of health facilities have the essential equipment and only 20 percent have the essential drugs needed to provide basic care.[9] Malaria is widespread, particularly in the north and central regions, and accounted for at least an estimated 22 percent of deaths in 2018.[13,14] In recent years, measles has killed almost 8,000 people, and two Ebola outbreaks centered in North Kivu Province since 2018 have further raised elements of distrust of outsiders and may affect future health efforts.[15] Multiple donors and international actors, as well as parallel public and private health systems, create inefficiencies in responding to these challenges.

A preliminary desk review conducted prior to data collection found that IDP-specific data on health outcomes and health systems usage appears to be largely non-existent from online and published sources. Clinics and hospitals do not generally keep separate data for IDPs, and local IDP registries, where they do exist, are often incomplete. Given the profusion of malaria as a primary cause of morbidity and mortality, in conjunction with cost serving as the overarching barrier limiting health access in this extremely impoverished population, it is likely that the primary health needs and barriers are similar between IDPs and host communities.

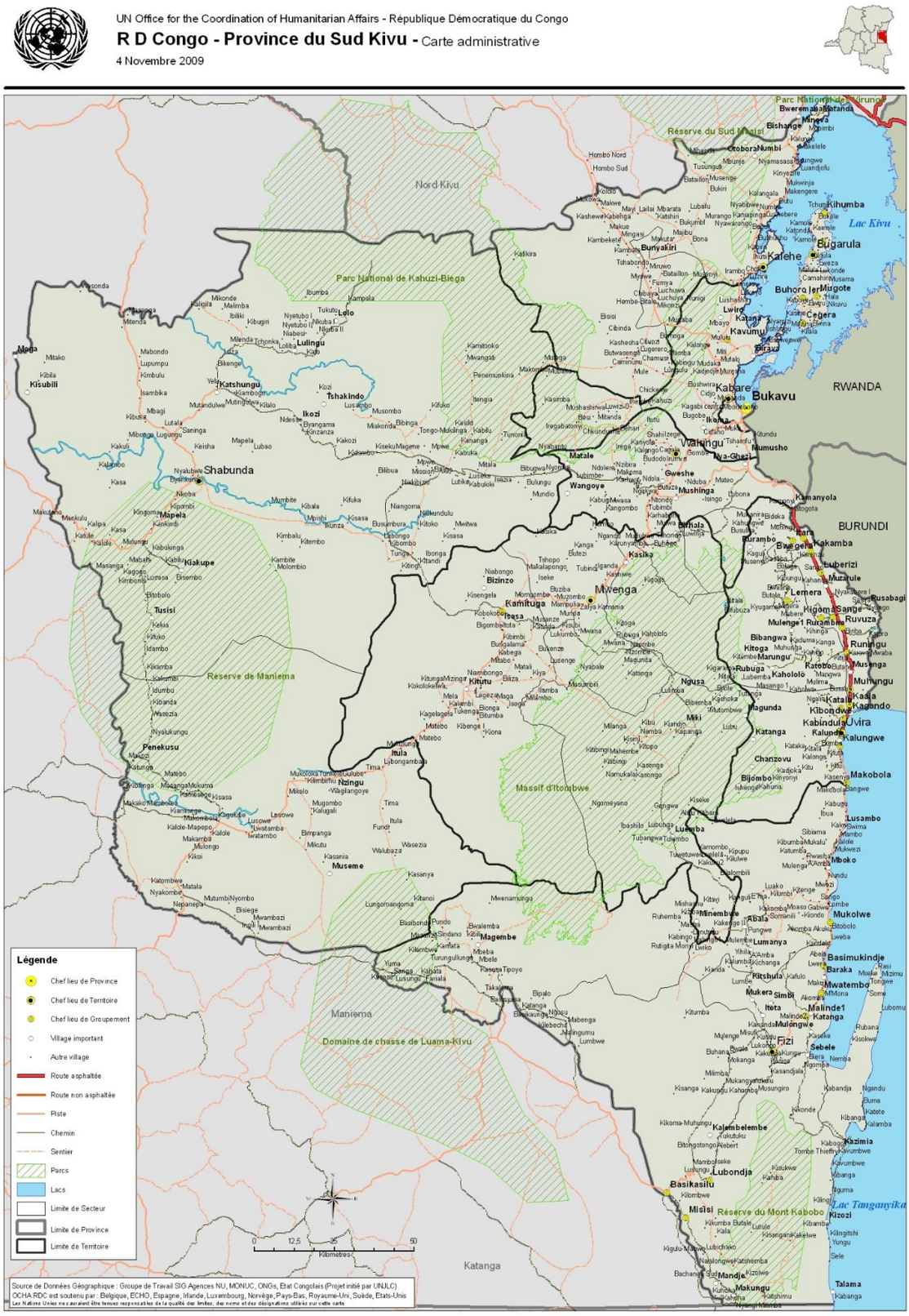


Figure 1: Map of South Kivu; Source: UN Office of Humanitarian Affairs, 2009

COVID-19 in Eastern DRC:

As of May 20, 2022, the DRC has confirmed approximately 87,600 COVID-19 cases and 1,338 deaths.[16] This is approximately 950 cases and 14.5 deaths per million population. In the first 18

months of the pandemic, however, the DRC had extremely low levels of COVID-19 testing with only 3,300 cumulative tests per million persons, substantially lower than the 1 million cumulative tests per 1 million population recommended, leading to the likely possibility of high rates of undetected COVID-19 transmission.[17] In fact, a Fall 2020 study found the seroprevalence rate of individuals with SARS-CoV-2 antibodies in Kinshasa after the first COVID-19 wave to be 16.6 percent, and estimates of excess mortality in South Kivu show a 50 percent increase in mortality rate during a similar time period.[18]

Throughout the country, under 900,000 vaccines had been administered as of the end of May 2022, enough for just 0.5 percent of the total population to have received two doses.[19] Preliminary data analysis in South Kivu found a significant increase in excess mortality between May and December 2020, suggesting the pandemic may be responsible for both more direct and indirect deaths in the region than represented by the confirmed case numbers.[20]

Additionally concerning are the indirect impacts of COVID-19 on healthcare access and livelihoods in the DRC. Total outpatient health service visits decreased immediately after the beginning of the pandemic, reaching a peak disruption of approximately 20 percent in August 2021.[21,22] Particularly hard-hit provinces include North Kivu and Ituri, which both host significant displaced populations.[22] Patients seeking out diagnosis and treatment for communicable diseases such as malaria and diarrheal diseases decreased by 20-30 percent, and new diagnosis of non-communicable diseases dropped initially by 16 percent for hypertension and 39 percent for diabetes, rebounding only modestly in the months that followed.[21] COVID-19 has further increased already-high rates of distrust in the healthcare system. Focus groups and key informants reported avoiding healthcare facilities out of fear of being labeled as having COVID-19, fear of forced vaccination, and suspicion that COVID-19 was a myth developed by NGOs and other nations to further harm vulnerable populations in the DRC. Furthermore, those who did seek care reported experiencing high prices and delays in treatment.

Travel restrictions with neighboring countries were imposed in response to COVID-19, particularly in 2020. On 19 March 2020, President Felix Tshisekedi announced flight suspensions, imposed a state of emergency, and closed the country's external borders.[23] In interviews with key informants and focus groups, the primary concern regarding COVID-19 reiterated multiple times across conversations was that of the impact of border closures on the local economy. Cross border trade and commerce are a feature of the local economy, and the disruption of these ties led prices of external goods to increase substantially, while the ability to purchase culturally-appropriate food decreased.

Informal work is a dominant feature of the economic sector, employing more than 77 percent of Congolese people and providing income to more than 90 percent of households in the country.[24] Given that the functioning of this sector is fundamentally dependent upon human mobility in both urban and rural locations, the lockdowns imposed by the government contributed to a rise in crime, exacerbated poverty, and likely increased rates of gender-based violence.[24,25] Cross-border exports and imports were either slowed down or completely halted by COVID-19 restrictions, and is counted among the reasons for the country's slip into a recession for the first time in almost two decades.[26,27]

Overview of Research

With support from Columbia University, Rebuild Hope for Africa (RHA) undertook the following activities upon which this report is based. Due to COVID-19 travel restrictions in place during the majority of the field work, data collection was only possible in South Kivu.

RHA completed the following data collection:

- Explorations of three areas of South Kivu Province; the most IDP-affected areas of Ruzizi and Uvira Health Zones in the Uvira territory; the most IDP-affected areas that were accessible in the northeast of the Provence in Kalehe territory; and in and around the province capital of Bukavu. In each area RHA spoke with key informants in the medical system and humanitarian community, conducted focus groups with both IDPs and long-time residents, and visited hospitals and clinics (Figure 1).
- 12 key informant interviews were conducted, one with a pastor, one with a local chief, and the remainder with the highest-level health official available for interview, including: a WHO

Emergency Officer, the Health Provincial Director in Bukavu; and the Health Zone Chief Doctors of Ruzizi and Uvira health zones.

- 13 rural-based focus group discussions (5 with IDPs, 2 with refugees, 4 with the host population, and 2 with mixed populations), totaling 105 people (Table 1).
- 3 hospitals and 4 clinics were visited and facility directors and personnel were interviewed using the Columbia University Health Facilities Assessment (HFA), adapted to address local contextual challenges and relevance. Facilities were chosen to elucidate information relevant to displaced communities and based upon accessibility of the research staff due to the prevalence of travel restrictions and security concerns; the HFAs are not intended to provide a comprehensive overview of the health system.
- A review of secondary documents on financing and costs of services for host and displaced populations was conducted.

	MALE ONLY	FEMALE ONLY	MIXED MALE AND FEMALE	TOTAL
HOST POPULATION	1	1	2	4
INTERNALLY DISPLACED POPULATION	0	2	3	5
REFUGEE POPULATION	1	1	0	2
MIXED HOST AND DISPLACED POPULATION	0	1	1	2
TOTAL	2	5	6	13

Table 1: Focus Group Discussion demographics

Note: The majority of this data collection occurred in December 2020. This report will attempt to highlight any significant policy, health, or situational changes which may impact how this data should be interpreted and contextualized.

Chapter 2: How has the health system adapted over time to meet the needs of the displaced population, and how does this compare to host population experiences of the health system?

The DRC Government Health System utilizes a 4-level pyramid model (Figure 2).[28] Community health centers serve as the first source of care for the population and are generally staffed by nurses to provide general care. The structure of community health services and presence of actors such as village health committees and community relays vary throughout the country; references to these resources were largely absent from focus group and key informant interviews, suggesting it is not a primary source from which IDPs receive care. The second level includes reference health centers which are staffed with general physicians in addition to supporting staff. Provincial hospitals provide specialist care, and university hospitals provide the greatest level of specialization and care.

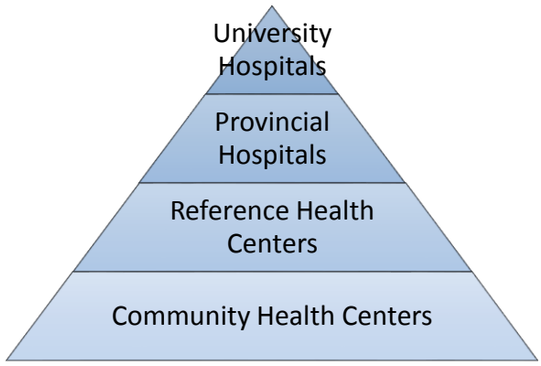


Figure 2: DRC Government Health System Pyramid

With a few exceptions, the government health system consists of a provisional authority that oversees health zones. There are a total of 516 health zones across all 26 provinces, with 402 health zones hosting a total of 6,968 functional community care sites.[29] The provincial authority supplies drugs, money for salaries and operations, and oversight of the health zones. Each health zone has a chief doctor and a supporting staff that oversee at least one, and often several, hospitals as well as dozens of clinics. Of the 516 health zones, 393 host general reference hospitals; faith-based organizations run 34 percent of said hospitals.[29] Funding for hospital and clinic operations comes from the provisional authority directly. While faith-based hospitals are theoretically integrated into the public system in that they follow national standards and report into the routine health information system, they often function in parallel to the government system.[29] In the Kivus, the few faith-based facilities present are self-funded and are largely parallel to the government system.

The number of health facilities varies greatly by region and does not reflect the local population, suggesting a potential maldistribution of health services. In particular, the number of health facilities in North and South Kivu do not reflect the large population in these provinces (Table 2). Furthermore, the availability of basic medicines, supplies, and appropriate healthcare staff and staff training is lacking, with only 27 percent of facilities meeting standards on human resource training, availability of supplies, and existence of protocols.[9] Of the seven facilities visited, while all reported providing at least 75 percent of general services[*], only one – a referral hospital – met basic amenities standards including access to consistent power, clean water, safe waste management, institutionally-based communication tools, and emergency transportation (Figure 3). Despite all clinics reporting that they were able to provide vaccines, only the two referral hospitals visited reported safe sharps disposal practices. When asked to free-list diagnostic capacities, malaria tests, glucose tests (blood or urine), and hematology were widely reported, but other tests – such as for HIV – were only sporadically referenced. No facility reported measles tests or glycated hemoglobin.

Table 2: Population and Health Facility Numbers by Select Provinces Highlighting Maldistribution of Health Services[30]

PROVINCE	ESTIMATED POPULATION (IN MILLIONS)	HEALTH FACILITIES (#)
NORTH KIVU	10	632
SOUTH KIVU	7.1	867
KWILU	5	1608
HAUT KATANGA	6.1	1652

Note: Data current as of February 25, 2022; Date Source: Humanitarian Data Exchange - OCHA

[*]The general services included in the survey were: a) provision of curative care services for children under 5; b) growth monitoring services; c) adolescent health services; d) diagnosis of STIs, excluding HIV; e) HIV counseling and testing services; f) HIV/AIDs retroviral treatment or follow-up services; g) HIV/AIDS care and support services, including treatment of opportunistic infections and provision of palliative care; h) diagnosis and management of non-communicable diseases, excluding diabetes; and i) provision of minor surgical services, such as the incision and drainage of abscesses and suturing of lacerations that do not require the use of an operation theatre.

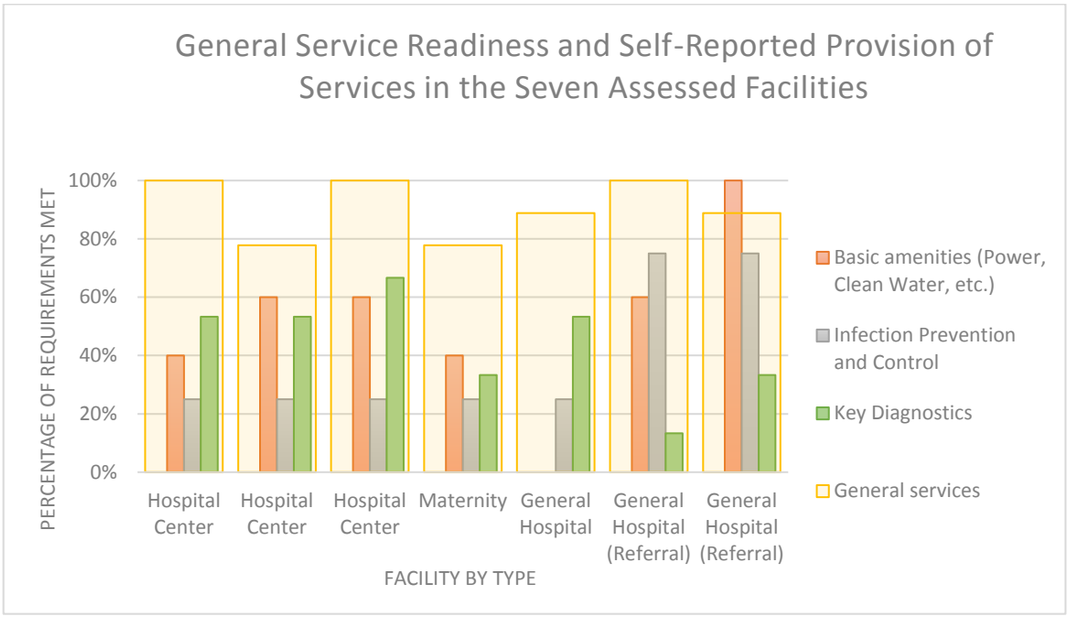


Figure 3: A comparison between the self-report of general services provided compared to readiness of basic health facility infrastructure[†] by health facility type in the 7 interviewed facilities suggests facilities lack essential infrastructure and supplies to meet their needs according to service delivery level.

Childhood vaccinations were widely reported as available and free. Between 2018-2020, vaccination rates increased 50 percent due to the implementation of the Mashako Plan, a government-led emergency response effort, co-financed by the DRC national government and GAVI, to increase lagging vaccination rates.[31,32] Throughout the country, immunization coverage for Hepatitis B, polio, and measles remains above 75 percent, with many provinces reporting rates for these vaccinations above 90 percent.[30] However, these gains are placed at risk by the disruptions caused by COVID-19, with GAVI estimating that almost 23 million children missed routine vaccinations due to the pandemic in 2020 alone.[33] Among the health facilities interviewed, all but one reported offering routine vaccination services in the past three months, although none met the WHO-standard of providing access to vaccinations on a daily basis.

Few other population-based preventive measures were widely reported. Some public health campaigns, such as the importance of clinic-based births, have been undermined by actions at the hospital level such as patient fees. Treatments for non-infectious illnesses were reportedly available for a small number of conditions at clinics and hospitals (e.g. dewatering tablets for congestive heart failure).

None of the government facilities visited had a systematic or measurably different set of services for IDPs. Generally, there is one system that serves all Congolese equally. It was universally reported that the drug and material supplies as well as the funding of staff and operations are inadequate across the health system. This results in two main strategies for sustaining operations: cost recovery mechanisms such as user fees, and solicitation of sponsorship and support from NGOs or outside authorities such as Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) or the US Office of U.S. Foreign Disaster Assistance (OFDA).

For those who can afford out-of-pocket payments, outpatient treatment of malaria, diarrhea, and respiratory infections is widespread and available at both clinics and hospitals (See Figure 4). For deliveries as well as minor injuries and surgeries, services are available at hospitals and some clinics. While clinic-based births are theoretically free, many unofficial external costs arise for both host and IDP communities according to focus group members.

Some exceptions to this system arise. One Red Cross Health facility was visited adjacent to a refugee camp where clinical services were provided free of charge to all patients, regardless of displacement status. However, during an FGD, host community healthcare workers voiced the perception that some

[†] The indicator used to determine readiness of basic health facility infrastructure was adapted from the WHO's Service Availability and Readiness Assessment. Basic amenities include the mean availability (%) of five items: power, improved water source, waste management, communication equipment, and emergency transportation. Standard precautions for infection prevention was assessed through the presence and use of safe sharps disposal methods. Diagnostic capacity was assessed using free-listing, with responses categorized into key diagnostics such as hemoglobin tests, malaria diagnostic capacity, blood glucose tests, urine glucose tests, HIV tests, etc.

facilities only offer free care to displaced communities, and that such free services contributed to resentment towards refugees by local residents. All other focus groups and locations were emphatic that costs were the main barrier to health for IDP's and locals alike and that many or most in need of care did not attempt to use the government health system because of the cost barriers.

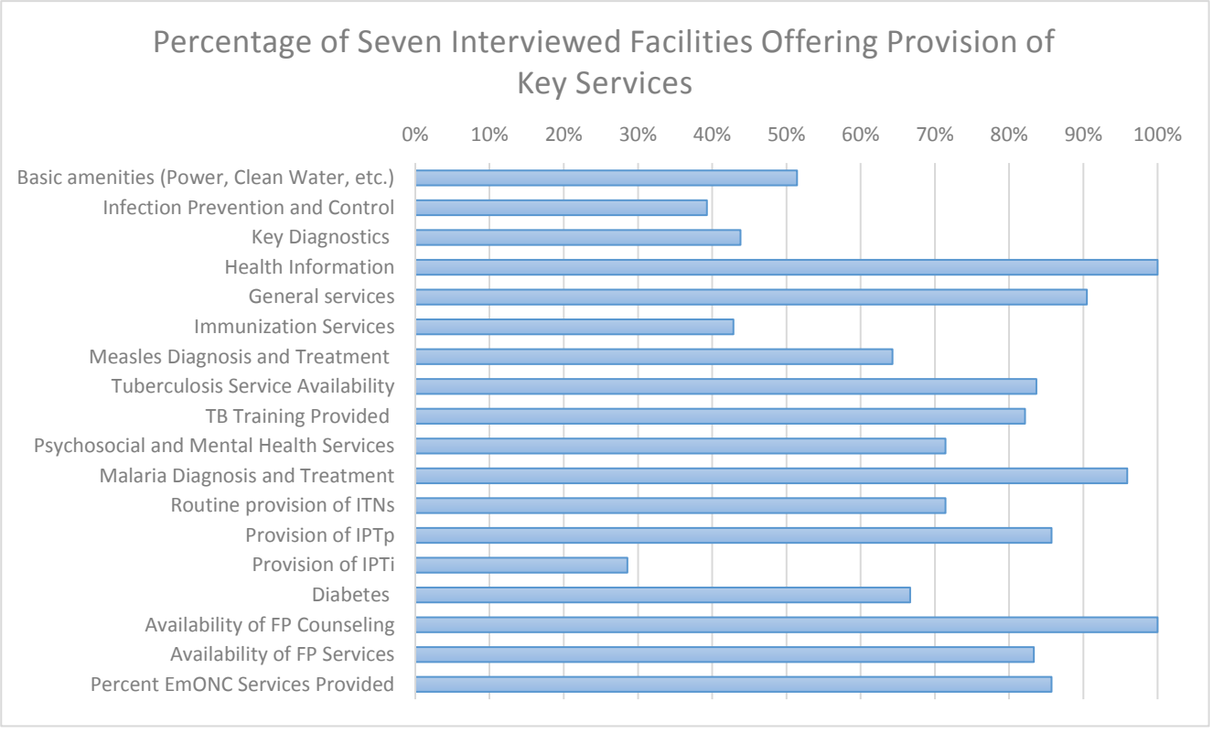


Figure 4: Mean provision self-reported service availability of key indicators across the interviewed health facilities.

As mentioned above, in periods of mass displacement and emergency, examples were reported by interviewees of outside "extra" assistance provided to the government health system. WHO provided additional funding to clinics and GIZ provided support via international NGOs to support services to IDP's in the Fizi/Uvira area in 2021. Key Informants at the provincial level described other examples of additional staff training or support and cash assistance provided by international donors. Examples of these were not provided or reported by interviewees in the field. These examples only reached a small portion of the IDPs discussed by interviewees and do not constitute a significant portion of health spending. There is a widely-held perception among key informants that these emergency infusions undermine the cost-recovery system that the government and donors strive to establish in non-emergency settings.

Field clinical staff were grateful and appreciative of such outside support but often expressed notions that such support was not sustainable in the long term. This concern over sustainability of outside funding arose repeatedly during the data collection. A previous RHA project in southern South Kivu demonstrated the impact of funding cessation on service utilization and provision. The US The Bureau of Population, Refugees, and Migration (BPRM) provided funding during 2009 and 2010, via an American NGO, that purchased drugs and provided them to clinics in the Fizi area particularly impacted by the mass return of Congolese refugees from Burundi. Figure 5 shows attendance at Bibogobogo clinic, whose population served remained constant from 2010-12. The end of OFDA funding and drug provision resulted in a greater than 80 percent drop in attendance. Clinic staff reported that, because drug outages were quite frequent when supported only by MOH provisions, the population did not believe the clinic would be able to help them when they were ill.

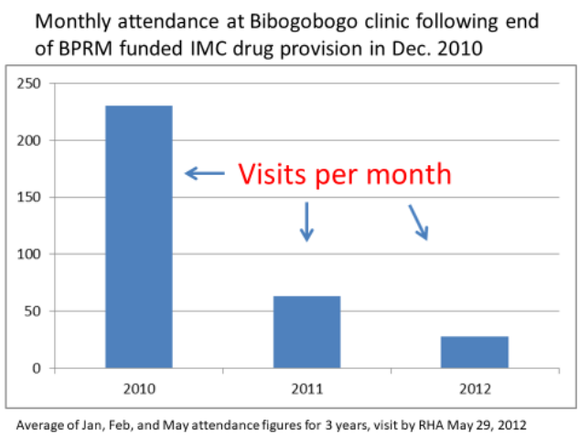


Figure 5: Example of impact of funding cessation

In summary, the primary health care system to address the most common illnesses is present, but accessibility and availability challenges remain. Many clinics are understaffed or struggle with ghost workers, and clinics that are adequately staffed face drug shortages that impact their ability to address many common health needs. Hospitals provide basic and more advanced services, but at a cost that is prohibitive to most - IDPs and residents alike. No national system to specifically support IDPs exists. While separate funding to support refugees in camps exists, the more numerous IDPs receive no such support and are instead reliant on piecemeal NGO services. External funding arises at times to support the existing health structure provides short-term benefits but rarely proffers long-term commitments.

Deep Dive Topics

The health facility assessment data collected in each of the four study countries includes various deep-dive topics which strive to highlight the specific needs and capacities of the health system.[‡] These include: immunization and measles, tuberculosis diagnosis and treatment, psychosocial and mental health services, malaria diagnosis and treatment, diabetes diagnosis and treatment, family planning, and emergency obstetric services. These topics were chosen not only due to the critical nature of these services, but they also provide a lens through which to understand the capacity of the health system to deliver different types of services. For example, a facility that can respond effectively to emergency obstetrics (either through direct treatment or timely referral, according to facility type) is likely to be able to respond to other forms of emergency and/or trauma care.

Immunizations, Measles, and Cholera

As described above, vaccine-preventable diseases remain a challenge in the DRC. In the focus groups, both displaced and host communities described concerns about such diseases. Cholera was of particular concern due to inconsistent access to potable water.

Among the health facilities visited, all but one reported offering routine vaccination services in the past three months, although none met the WHO-standard of providing access to vaccinations on a daily basis; most offered vaccinations on a weekly or monthly basis. Two facilities, however, did report offering vaccinations on the day of the interview. While the availability of supplies, vaccines, and cold chain capabilities were not independently confirmed by the interviewing staff, it is important to note that only one facility – a referral hospital that did not report providing vaccinations (HF7) – had access to a sharps container, suggesting that even facilities providing vaccines may need additional support and training to ensure the safety of healthcare workers as well as patients.

All facilities had either diagnosed measles in the past three months or reported having the capacity to diagnose measles but had received no patients. Two facilities reported utilizing a laboratory diagnostic test in their diagnosis; however, no facility referenced an IgM/measles test when free-listing laboratory and diagnostic capabilities. Facility interviewees reported diagnosis training for staff had been provided in 6 out of 7 facilities, while warning protocol training had been provided in 5 out of 7 facilities (Figure 6). Thus, among these seven hospital level facilities, all treated measles cases, most had received appropriate training, most could only provide vaccinations intermittently, and all had some shortcomings in their laboratory diagnostic capacity and lacked material assets for regular and safe vaccinations.

[‡]Note: The health facility assessments were conducted within the facilities and involved interviewing facility staff. The capacity of the health facility to provide care for the various health needs was provided by self-report. The presence of indicated medications and medical supplies was not independently evaluated. Challenges regarding intermittent supply-chain issues, staffing shortages, and other issues that may impact the ability of the facility to provide care as described may impact the reliability of this data.

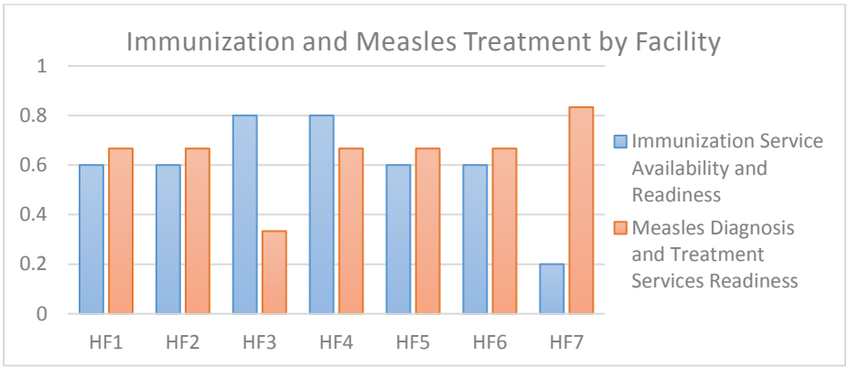


Figure 6: Percentage of immunization service availability and readiness as well as measles diagnosis and treatment service readiness

Tuberculosis (TB) Diagnosis and Treatment

As of 2019, the estimated TB incidence in the DRC was 320 cases per 100,000 population, with a mortality rate of 49 deaths per 100,000 population (including HIV co-infections) and a treatment success rate of 93 percent.[34] Of the estimated 270,000 of people living with TB in 2018, 37 percent were undetected by the national health system, suggesting a significant gap in community outreach and diagnostic capacity.[35]

Tuberculosis represents a significant challenge for under-resourced health systems. The consistent provision of medication over time, often directly observed by clinical staff to ensure compliance, requires strong human resources and supply chain capabilities.

Of the facilities interviewed, six out of seven reported diagnosing TB in the past three months. While all reported using clinical techniques (rapid diagnostic test, sputum smear microscopy, culture, or X-ray), when asked to report on their laboratory capabilities, only one facility – a clinic – mentioned a TB-specific test. Six of seven facilities reported healthcare providers had received training for the care of TB in the past two years; of those six, all indicated trainings had been provided for i) TB diagnosis and treatment, ii) management of TB and HIV co-infections, and iii) treatment of MDR-TB. Five out of six facilities reported staff had received training in TB infection control, as well. The singular health facility that did not provide TB care was the same facility championed in the FGDs as the only source of free healthcare. (Figure 7).

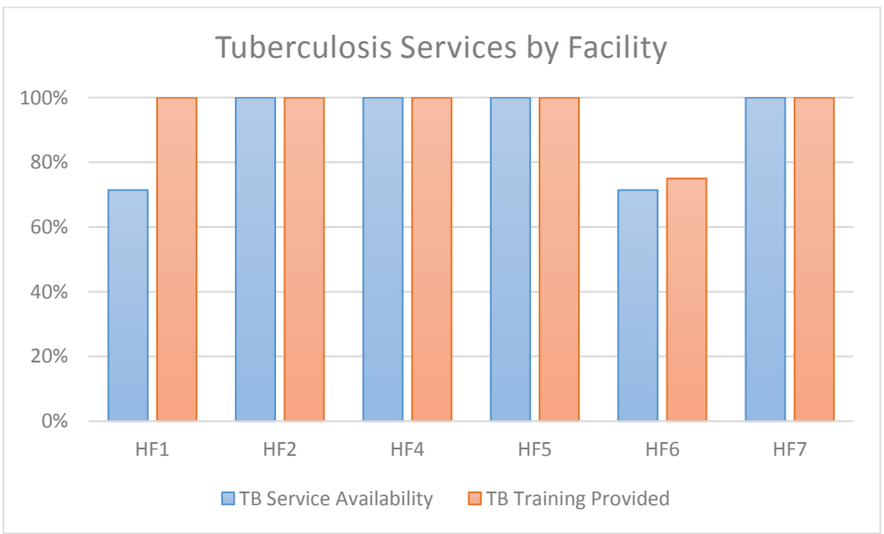


Figure 7: Percentage of key tuberculosis services by facility interviewed

Only twice was TB mentioned during the focus groups. The first reference was in critique of a hospital that did not have the bed capacity to separate patients with contagious diseases from other patients. The second described increased vulnerability among persons with chronic diseases such as TB, but did not describe the healthcare needs or provision for TB patients. The paucity of discussion related to TB may potentially reflect the prevalence of other pressing health needs and/or a gap in health education regarding the need for TB screening and treatment.

Mental Health

The prolonged conflict and repeated displacements has created significant need for mental health services throughout the country, but cultural stigma, religious beliefs, and a severely limited amount of trained mental healthcare providers has largely kept the total mental health burden hidden.[36] As of 2014, only 6 mental health hospitals existed in the country, with a total of 500 beds, and there were only 34 neuropsychiatrists and 11 doctoral-level psychologists; the majority of these services were based in Kinshasa, with few to none in most rural regions.[37]

All hospitals and clinics visited reported mental health services were available; one hospital and one clinic described that their mental health services were dedicated to the stabilization and referral of mental health care, while the others described various approaches to directly providing mental health care. A detailed description of the services provided, as well as information regarding staff mental healthcare and sensitivity training, was not obtained as part of this survey, but one health provider noted in his interview that an INGO had previously provided training for mental health care to some staff members. Notably, various focus groups, particularly those representing displaced communities, cited mental health as a significant concern; recommendations for tackling mental health issues primarily centered on addressing underlying determinants of health, including accessibility of physical healthcare and livelihood opportunities, and did not describe instances in which mental healthcare was sought in the government health system. Thus, when taken together, the facility assessments and the focus groups suggest that mental health services may exist but to do not seem to be utilized at a significant level.

Malaria Diagnosis and Treatment

Malaria is a leading cause of morbidity and mortality in the DRC, with children under five particularly vulnerable. Nearly 95 percent of the population of the DRC live in malaria-endemic regions.[38] The decade between 2004 and 2014 saw steadily decreasing incidence rates of malaria, but more recent years have seen a concerning round up to 319 cases per 1,000 population at risk as of 2018.[39] Of the approximately 30 million annual malaria cases in the DRC, approximately 310,000 result in the death of a child under 5 years of age.[38] In November 2021, the U.S. President's Malaria Initiative (PMI) announced it would be adding the DRC to its list of focus countries, highlighting the important role of malaria control and prevention in improving public health in the DRC.[38]

The prevention, diagnosis, and treatment of malaria requires a robust health system: a consistent supply chain is needed to provide preventative measures such as insecticide-treated bed nets (ITNs) as well as pharmaceutical treatments; diagnosis of malaria requires substantial investment in healthcare provider training, particularly for microscopy; and a timely referral system is required to address cases of complicated malaria.

In focus groups, both displaced and host communities referred to malaria as a key health need, including one respondent who keenly pointed to the unprotected housing in displaced communities as a reason for high rates of malaria. Multiple key informants referenced the need for additional ITN distribution efforts to address the high rates of malaria in the region.

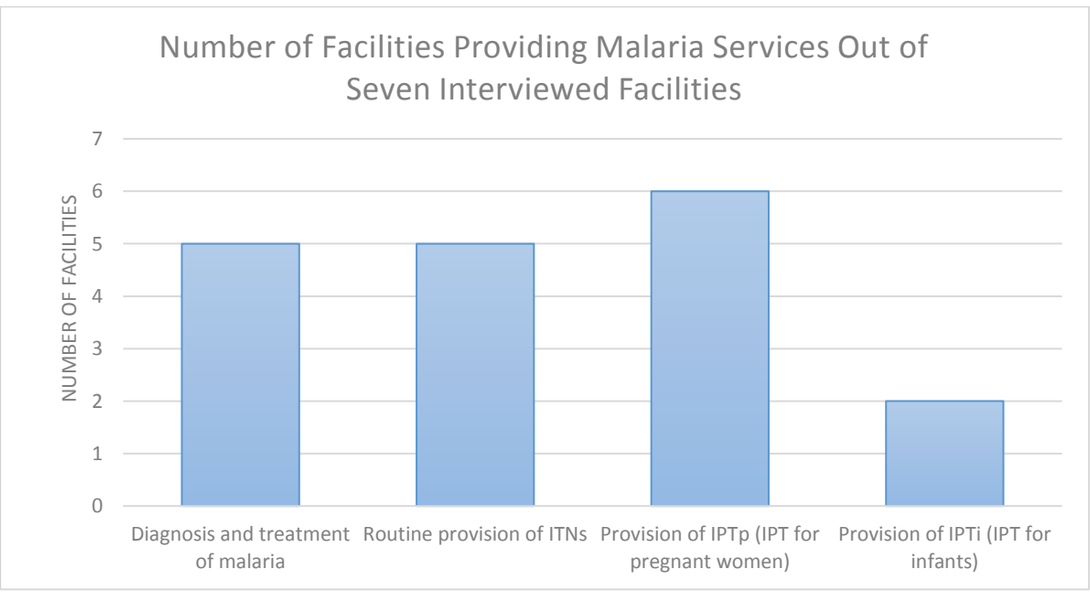


Figure 8: Number of facilities providing malaria services out of the seven interviewed facilities. Note that the for the purpose of this graph, the diagnosis and treatment of malaria indicator has been simplified from a ratio to a binary indicator in which all facets of the indicator must be met to be counted as providing the service.

The health facility assessments found that all facilities reported the necessary diagnostic and treatment capacities for their level of care, although Facility 3 reported not treating malaria in the past three months (Figure 8). For reference, all facilities were expected to have a formal diagnostic method, including rapid diagnostic tests but not including diagnosis by clinical symptoms alone. Clinics were expected to have the necessary medications for the treatment of uncomplicated malaria and referral for complicated malaria, while hospitals were expected to provide care for complicated malaria. However, only 4/7 facilities reported providing ITNs, and provision of ITP for pregnant women (6/7 facilities) was much higher than provision for infants (2/7). Notably, a maternity hospital was the only facility to report meeting all of the above requirements.

Family Planning

Access to family planning is extremely limited in the DRC. According to UNICEF, the demand for family planning satisfied by modern methods is met in just 16.3 percent of families nationally; in South Kivu, it is slightly higher at 22.4 percent.[40] The DRC has made significant investments in increasing family planning in recent years, increasing the contraceptive (modern methods) prevalence rate among women from 8.1 percent in 2012 to 15.5 percent in 2020.[41] However, during that same period, unintended pregnancies increased from 1.6 million to 1.9 million.[41] The most common forms of contraception included male condoms (27.5 percent), LAM (23.5 percent), the pill (18.0 percent), the implant (12.3 percent), and injectable (11.7 percent).

Of the facilities interviewed, all reported providing implants, and all but one referral hospital reported providing male condoms (Figure 9). Emergency contraception was reported to be the least available and offered at only four facilities. As will be discussed in more detail under the Emergency Obstetrics section below, facility self-report of provision of care for sensitive topics such as family planning must be contextualized within the wider sphere and include considerations such as willingness to discuss availability of services, social and economic pressure to present services as available regardless of any staff shortages or stockouts, and the accessibility and appropriateness of those services to the local population. In the women-only focus groups, the topic of family planning was raised; women reported that family planning services were discussed during pre-natal visits. Opinions on family planning were mixed, with some women reporting successful use of family planning methods and others reporting they were unconvinced in the efficacy of family planning methods or that they received resistance from their husbands.

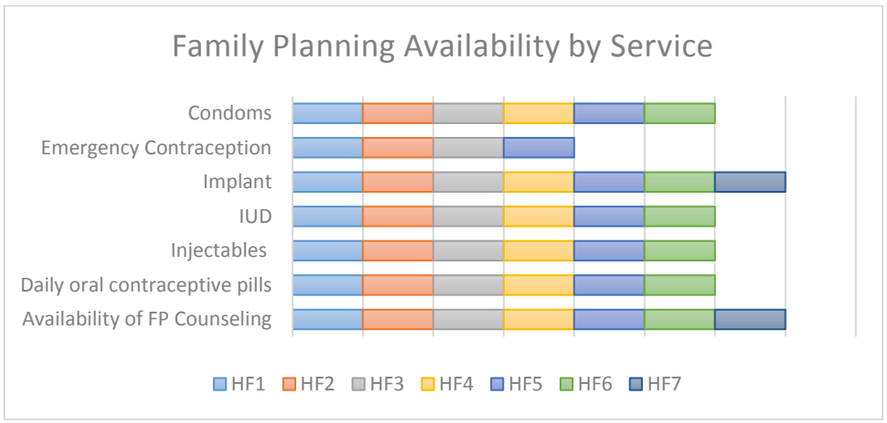


Figure 9: Types of family planning services available across different facilities

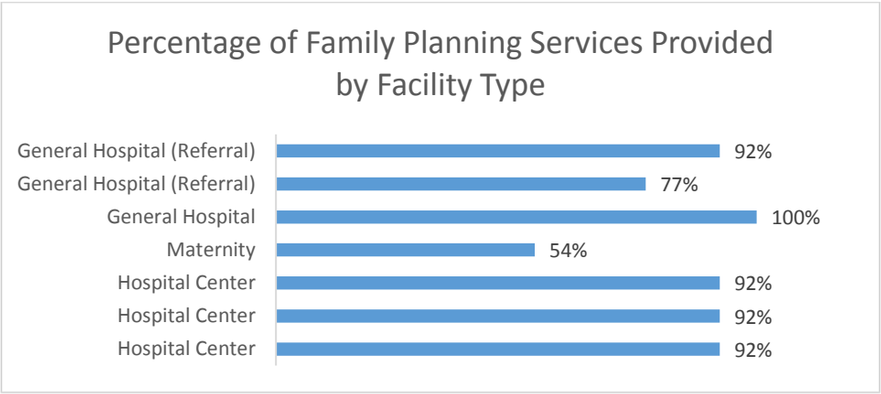


Figure 10: Percentage of family planning services provided by type of interviewed facility

Emergency Obstetrics and Newborn Care (EmONC)

Over the last two decades, maternal mortality has declined in the DRC but still remains disturbingly high at 473 deaths per 100,000 live births, with South Kivu experiencing almost double that ratio.[42] The high fertility rate among women in the DRC (5.82), in conjunction with the high maternal mortality rate, results in the troubling statistic that the lifetime risk of maternal death is 1:34.[43] Direct causes, primarily hemorrhage (52 percent), cause approximately three quarters of deaths, while one quarter are caused by indirect causes such as anemia, heart disease, and malaria.[44] Two-thirds of deaths occurred in rural regions, underscoring the importance of strong and timely referral systems.[44]

Furthermore, in 2020, the neonatal mortality rate was approximately 26.8 deaths per 1,000 live births, more than double global SGD goals.[45,46] Prematurity (34.7 percent), birth asphyxia and birth trauma (28.6 percent), and sepsis (16.0 percent) are the leading causes of newborn mortality.[40] Efforts to decrease home births have been successful in recent years, with 79.9 percent of women delivering in an institution.[40]

Improving maternal and neonate mortality requires a multifaceted approach including health education as well as improving emergency health systems through addressing delays in care and referrals, extended referral and transfer times, improving staff availability and training, and addressing shortages of necessary supplies and medication, including blood and oxygen.

The focus groups highlighted the vulnerability of pregnant and lactating women as well as children under five. The perception of accessibility of healthcare for these groups was not consistent across all focus groups; notably, one displaced group served by a local NGO stated that pregnant and lactating women received care for free, but still suggested that insecurity in the area may cause them to purchase medications themselves rather than seek out formal medical care. Women from the host community as well as displaced women not served by the NGO mentioned above both stated pregnant women would seek out pharmacies or traditional medicine and that the failure to attain formal healthcare led to poor health outcomes.

One interview with a male focus group highlighted that, due to lack of means to pay for services, women sought out private health centers and pharmacies that are more affordable than the government health system. Women were more likely to give birth at home or go to prayer rooms due to this burden; while secondary data sources suggest high rates of institutional births, the interviews highlighted fears that women who could not pay would be turned away or detained at the hospital after they gave birth until their fees were paid. While it is unclear the extent to which delays in discharge pending payment is practiced, at least one KII with a healthcare provider referenced this approach to address facility insolvency.

Health facilities were asked to report on whether they could provide for a series of emergency obstetrics and newborn needs, including: normal deliveries, parental antibiotics, parental uterotonics, parental anticonvulsants, manual removal of placenta, assisted vaginal delivery, blood transfusion, caesarean section, post-abortion care, removal of retained products of conception, safe abortion care, removal of retrained products of conception using misoprostol, and neonatal resuscitation. These were self-reports, and do not include the 24/7 availability of supplies, medication, and staff necessary to complete the processes. The results are shown in Figure 11 and 12.

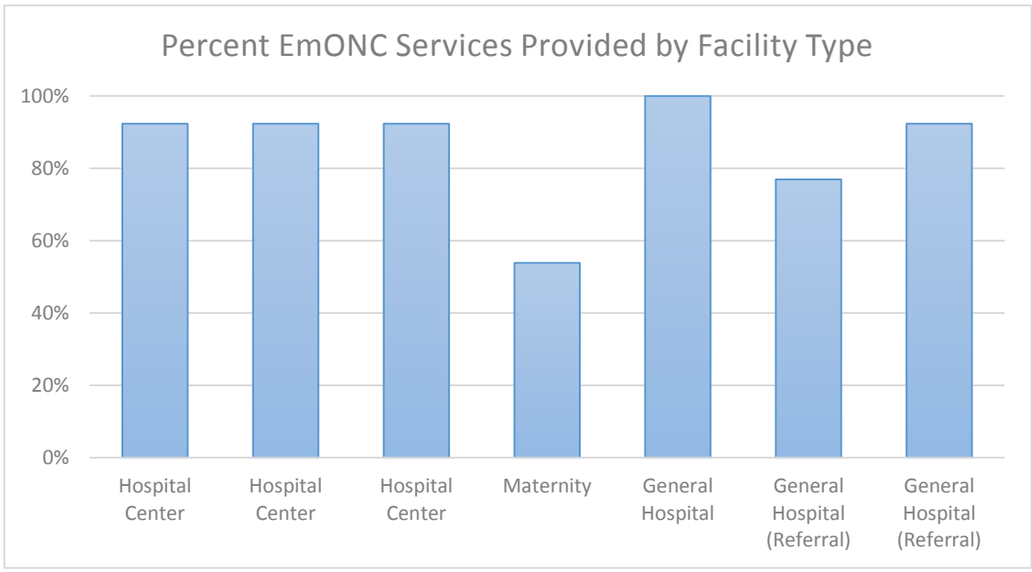


Figure 11: Percent of EmONC services provided by type of interviewed facility

Notably, the maternity hospital reported significantly fewer services than other facilities. For example, it was the only facility that did not report providing safe abortion care. Several factors make simple comparisons between facilities complicated. For example, Catholic Church-supported facilities will often not conduct abortions. The total number of clinical staff (doctors and nurses of all educational levels) at the maternity hospital per 1000 population served (.22) is less than all but one other facility; the maternity hospital also has the lowest raw number of reported providers of the seven interviewed facilities (See Chapter 3: Human Resources). The maternity hospital may be constantly drained of resources due to expensive supplies and the economics of serving maternity patients (e.g. few outpatients, high clinician demand time per visitor, etc.) likely leads to financial stress. In addition, the poaching of qualified staff by INGOs and UN organizations due to their better capacity to pay in comparison to local private and state structures may be a factor influencing the capacity of facilities to provide particularly expensive services. Further analysis is needed to clarify this data.

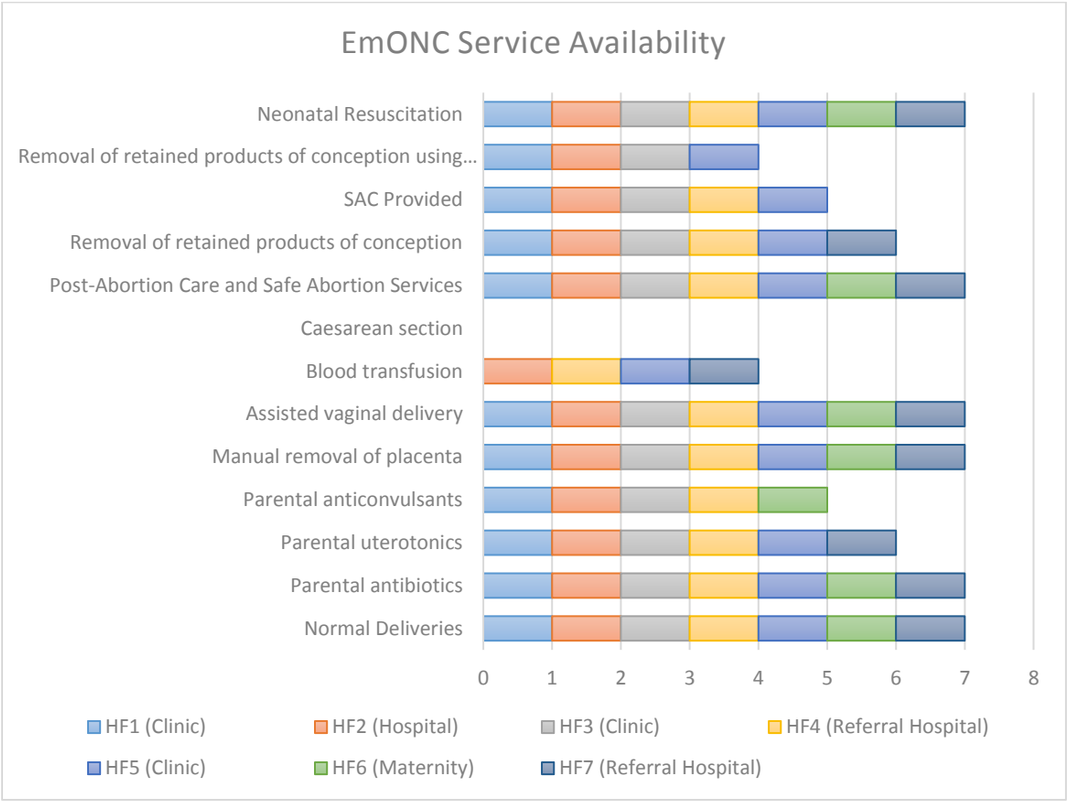


Figure 12: Type of EmONC services offered by interviewed facility

Notably, no facility reported offering cesarian sections. This is concerning, particularly for the referral hospitals, given the potential for increased delays and long transport times should such support be needed.

Referral times

Referral delays are a significant concern when addressing emergency care. Particularly in low-income and rural regions, delays may be exacerbated by lack of communication between health facilities, lack of transportation, lack of fees for transportation or care, health worker skills or attitudes, and long travel times due to both distance and poor road conditions. The facilities visited are almost universally performing poorly in referring patients, with multiple day delays common.

Patients seeking referrals may also be barred due to cost. One focus group of mixed displaced and host population suggested that 60L of fuel must be supplied by the patient before being transported, regardless of the urgency of the referral. When facilities were asked to describe their most recent emergency referral, the delay time varied between no delay and almost 24 hours, with three facilities reporting <1-hour delays and three reporting >10-hour delays. The most common reasons provided for delays were problems with transportation (33 percent) and re-evaluations of the patient status and prognosis (33 percent).

Environmental Determinants of Health

No analysis of the changing needs of the health system would be complete without acknowledging the impacts of environmental conditions and climate on quality, accessibility, and acceptability of healthcare. Throughout qualitative data collection, respondents highlighted such issues as the impact of poor living conditions on disease burden. Lack of food and malnutrition was referenced in two focus groups with displaced men and three focus groups with women (both displaced and mixed displaced/host), with pregnant women, children, and the elderly noted as particularly vulnerable. Interviewees emphasized the strong link between the lack of high-quality food and susceptibility to infection, yet when describing health-seeking behavior associated with malnutrition, the focus remained on informal or traditional sources of care; no mention was made of allopathic care or malnutrition-specific services. Additionally, thirty-one percent of the population of the DRC does not have access to an improved drinking water source[9]; the lack of clean water was mentioned frequently in the interviews, as were health outcomes including contracting cholera and intestinal worms. Both key informants as well as focus groups recommended water infrastructure improvement to address these concerns.

Flooding also was referenced frequently as a significant cause of displacement as well as food insecurity. In one example, a focus group of displaced individuals detailed how increased rains leading to low crop yields meant they could no longer find work in host-community fields, thereby decreasing their ability to purchase food and other essential items. Flooded rivers were reportedly responsible for destroying the drinking water, as well.

Finally, while not mentioned by the focus groups or key informants, unsafe mining practices in the region are likely to have a long-term impact on the health of the local workforce due to issues such as heavy-metal exposure and silicosis.[47–49] Further research is needed to assess the extent of the impact of unsafe mining on health.

Chapter 3: Human resources for health response

Compared to the WHO target of 4.5 clinicians (doctors + nurses + midwives) per 1,000 population, the DRC has significantly below the necessary number of health care workers.[5] The lack of clear record keeping and the high presence of "ghost workers" – healthcare workers who are present on paper but not in the field – makes enumerating the healthcare workforce challenging; however, estimates suggest the DRC has only 0.1 physicians and 1.1 nurses and midwives per 1,000 population.[50] The 6 facilities visited for which population catchment data was obtained ranged between 0.16 clinicians to 0.74 clinicians per 1000 people (Figure 13).

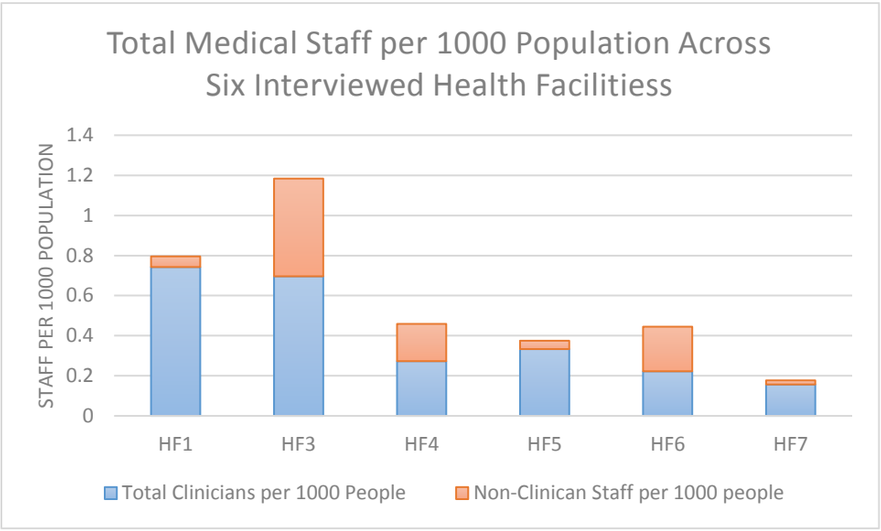


Figure 13: Total clinical and non-clinical staff per 1000 people across six interviewed health facilities.

Delays in payment and failure to pay healthcare workers is a widespread challenge. Nationwide data from 2017 suggests that over half of the health facilities in the DRC are public facilities, only 31 percent of healthcare workers reported receiving government funds, and 75 percent of healthcare workers reported obtaining their compensation from user fees.[51] Of those receiving salaries, over 20 percent reported their payments were at least one month delayed, and many reported receiving significantly less than expected.[51] Notably, female healthcare workers received lower total payments and were less likely to receive additional support, such as per diems or performance payments, than their male counterparts.[51]

Multiple high-level staff in health facilities mentioned struggling to pay health workers. When wages are delayed, healthcare workers have resorted to providing extra-facility care out of their homes, further complicating the issue.[52] Nurse and doctor unions throughout the country have declared multiple strikes in recent years, including a nurse strike in South Kivu at the time of data collection. In June 2021, 1,700 nurses again went on strike, this time in northeastern Tshopo province, due to not receiving salaries or bonuses for 11 months.[52]

Attacks on healthcare workers, including psychological violence and threats as well as physical violence such as arson and murder, are also a major concern in the region. A report by Insecurity Insight found 483 acts of violence or threats against health workers in eastern DRC during the 2018-2020 Ebola response, with the number of attacks decreasing after the scaling down of the response in late 2019.[53,54]

Despite the extremely low rates of human resources, this may not be, at present, the primary barrier to care. Clinic visitation rates were very low with clinics often seeing just a handful of patients per clinician per day, suggesting the primary barriers to care, such as cost, impacted care seeking behavior prior to the arrival at a facility. Thus, while medical staff, especially in rural areas, may be lacking, that does not seem to be a significant barrier discussed by the key informants due to the low rate of people seeking health care is so low. Programming and financing which seeks to address the cost of services may, therefore, need to address staffing shortages in order to avoid overburdening the limited health workforce should they succeed in increasing service utilization.

Health workers from within the displaced populations were not a topic that arose in the focus groups or interviews. Given that the displaced communities are primarily from the most rural and impoverished areas, this appears to be less of a concern in the DRC than in other places.

Chapter 4: Health Information and Reporting Systems

Demographic and epidemiological information on displaced populations is largely unavailable in the DRC due to both under-sampling in regions with high rates of displacement as well the inability to disaggregate data from national surveys based on displacement status. Under-sampling is particularly pronounced in the Kivus where ongoing conflict and insecurity limit the ability for data collectors to reach the population. Furthermore, data disaggregated by nationality does not provide adequate insight into the presence and needs of displaced communities due to the high rate of internal displacement. Instead, with many IDPs dispersed among host communities, geographic disaggregation of administrative areas (i.e. provinces with high rates of displacement) can provide a sense of the combined demographic and health profile of displaced and host populations, relative to national averages. A secondary analysis of two national surveys [the Demographic and Health Survey (DHS) from 2013-2014 and the Multiple Indicator Cluster Survey (MICS) from 2017-2018] utilizing geography as a rough indicator for displacement status found a relatively similar demographic profile between North Kivu and the DRC as a whole; average age, educational status, and fertility rates did not differ substantially between the province and country levels (see Annex 1). Notably, however, North Kivu recorded lower rates of infant mortality and under-five mortality. This unexpected value has been theorized to be a remnant of maternal displacement away from violence or increased focus of NGOs in regions of greater fragility[55]; however, the impact of skewed data due to the inaccessibility of the most conflict-affecting regions cannot be ruled out as the predominant cause of this discrepancy.

Data on the health of displaced populations, therefore, is collected primarily through health system information systems along with a patchwork of outbreak investigations, program evaluations, and needs assessments conducted by INGOs and civil society organizations. Clinics are required to provide data on the number of patients seen on a monthly basis via the District Health Information System 2.0 (DHIS2), and certain illnesses, such as measles and cholera, require an immediate report.[56] Most clinics have access to a cell phone and monthly reporting from clinics seems to be timely and widespread, likely both due to the efforts by the Ministry of Health (MoH) and the Access to Primary Health Care (ASSP) program to train staff and increase uptake as well as due to pharmacy restocking schemes that rely on previous usage rates and incentivize reporting.[57] However, relying on health service utilization rates such as restocking schemes as a primary source of health needs data is not without issue, as consistent undercounts of health needs due to the potential for the underutilization of services to perpetrate and potentially exacerbate health system deficiencies.

During interviews, health staff reported the frequent use of charts and registers to guide programming and the use of condition-specific registers to track antenatal care, communicable diseases of concern, community health worker home visits, and medication management. Due to logistical challenges, however, interviews were not possible in peripheral facilities where most cases of illness are likely to be managed, thus leaving a gap in the data regarding the staff perception of data collection in those settings.

Nevertheless, surveillance in the Kivus remains remarkably insensitive and poor. Médecins Sans Frontières (MSF) estimated there were 20 times more measles deaths in 2019 and 2020 than were reported by the Ministry of Health, and a cholera outbreak in 2017 affected hundreds of people in southern South Kivu before it was recognized by the government. Thus, while the government's surveillance system functions as planned with clinics reporting as required, limited clinic access and underutilization of services is so severe that the surveillance system remains quite insensitive. For example, the UN's system for detecting child rapes, murders, and abductions (UN Resolution 1612) was evaluated to be less than 1 percent sensitive in 2010,[6] and there is little to suggest that this system has significantly improved since then. Therefore, accurate data on illnesses and deaths generally does not exist in eastern DRC except when a specific problem such as Ebola arises or an intensive evaluation is conducted.

Notably, of the 7 health facilities interviewed, all reported that they had a process to track return visits for at least one health condition mentioned (family planning, immunization services, TB diagnosis and treatment, and diabetes treatment). None of health clinics differentiated how health information was collected between host and displaced communities while two out of three hospital centers did make this differentiation. Sources of payment (healthcare voucher and NGO partnership) was the reason given by the hospitals that did make this distinction.

Chapter 5: Healthcare utilization, costs, and spending

Key informant interviews revealed a lack of willingness to discuss funding, making an examination of costs and spending difficult in this context. Additionally, there is very little information available on differences in health utilization and expenditures between displaced populations and host communities within DRC. Especially in the Kivu provinces and conflict-affected areas, there is a lack of availability of current household expenditure data. Due to these challenges, the analysis in Chapters 5 and 6 relies upon two main sources of data: (1) key informant interviews and focus groups, and (2) a review of secondary documents on financing and costs of health services, separated by province where possible.

Among virtually all key informants and both refugee and IDP focus groups (except the one composed of refugees in a camp with free clinical care), cost routinely arose as the main barrier to health care access. Inability to pay out-of-pocket charges and fear of hospital reprisal on non-payment, drove decreased healthcare utilization. While some of the cost barriers cited included non-medical issues such as transport costs, the majority were related to the financial stress associated with clinical care. User fees and other associated costs were widely cited as being exorbitant. While in some FGDs, interviewees reported that registered refugees received healthcare vouchers enabling their access to care, this is likely a limited practice based on the presence and capacity of UNHCR and other refugee-supporting organizations; the common refrain across FGDs was that everyone, including refugees, struggled to access healthcare. Often small user fees were reportedly dwarfed by high drug costs or the costs other supplies, such as needles or syringes. In the Uvira District, several focus group members had family members who entered hospitals for care, and afterwards were then detained for multiple days and sometimes weeks against their will until family members paid their bill. One clinic manager cited this practice as a way for addressing fiscal insolvency, but the WHO and Province Ministry key informants stated they were not aware for this practice. These kinds of experiences reportedly drive many or most ill people away from clinical care and to utilizing pharmacies or traditional healers as a first line of treatment. This financial fear and distrust of the medical system reduces attendance, reduces facility funding, and creates a vicious cycle of more financial desperation on the part of the clinics.

While data disaggregating between host and displaced populations' healthcare utilization was largely unavailable, socioeconomic status and geographic location served to highlight disparities present among the Congolese population. One study identified large differences in care-seeking behavior between the poorest and wealthiest quintiles of the population, with 60.3 percent of individuals in the lowest quintile who reported illness in the previous four weeks to the survey seeking care, compared with 75.8 percent of those in the wealthiest quintile seeking care.[58] The study also found that those in the wealthier quintiles were more likely to utilize formal care as well as services at general reference hospitals and private providers, while those in the poorest quintile were more likely to use informal services; this preference for the informal sector likely stems both from the cost of service as well as increased opportunities for flexible forms of payment (i.e. payment schedules, in-kind payments).[58] Looking at North and South Kivu as locations with large shares of displaced populations, residents of those two provinces had slightly higher rate of reported utilization of care consultations and outpatient visits in the previous month than neighboring provinces (See Table 3). However, in terms of child health, both North and South Kivu have lower rates of children with respiratory infections who sought treatment from formal health providers, with North Kivu having the lowest rate amongst neighboring provinces (with children 52 percent less likely to have sought care).

Provinces	Percentage of respondents with at least one care consultation during four weeks before interview	Annual number of outpatient visits	Average annual number of hospitalizations	Percentage of children with diarrhea seeking treatment from facility or health provider (%,n)	Percentage of children with fever seeking treatment from facility or health provider (%,n)	Percentage of children under 5yo with Respiratory Infection seeking for treatment from a facility or health provider (%,n)
North Kivu	14	2	0	41.5 (193)	39.2 (28.6)	29.9 (173)
South Kivu	14	2	0	46.1 (308)	37.2 (30.8)	42.3 (116)
Simple average [North and South Kivu]	14.3	1.9	0.3	43.8	38.2	36.1
Orientale	10.0	1.4	0.2	-	-	-
Maniema	13.1	1.8	0.2	70.3 (51)	45.5(130)	54.5
Katanga	12.5	1.8	0.13	*25.8 (139)	*40.7 (196)	68.6*
Simple average [neighboring provinces]	11.9	1.7	0.2	48.05	43.1	61.6
National average	14.7	2.1	0.17	36.74	32.52	39.06

Table 3: Utilization and Service, DHS, 2014

Using data from the EPSS (2017-2018), Table 4 shows the percentage of health facilities with availability of key health services and the availability of key services across all facilities surveyed. While some basic services (child growth monitoring services and child immunization) had high availability in both North and South Kivu, gaps in other essential services were notable: basic vaccines were only provided in 21 percent of facilities, Caesarean sections were only provided in 18 percent of facilities in South Kivu, and emergency transport service only provided in 17 percent of facilities in North Kivu.

Services Provided	North Kivu (n=94)	South Kivu (n=62)	DRC (n=1380)
Facility Type			
Hospitals (referral or terciary)	32	45	35
Referral health centers	23	2	16
Hospital centers/ clinics	22	18	10
Health centers	22	35	39
Child growth monitoring service	90	76	89
Child immunization	85	86	90
All basic vaccines	79	21	70
Modern methods of family planning	68	87	68
Deliveries	89	88	96
Caesarean section	30	18	26
Emergency transport service	17	64	19

Table 4: Services availability, EPSS (2017-2018)

Similarly, Table 5 shows the distribution of outpatient consultations by public and private sector facilities in North and South Kivu and their adjacent provinces (Orientale, Maniema and Katanga). When comparing outpatient consultations at hospitals between the sectors, public sector hospitals had almost double the rate of consultations than private sector hospital consultations, with almost three times the consultations in North and South Kivu than in the adjacent provinces.

Provinces	Public Sector				Private Sector				Missing	Total	Effective ambulatory care consultation
	Hospital	Health Center	Health Center (smaller infrastructure)	Other Public Sector	Hospital / Clinic	Pharmacy	Other private medical sector	Other sources			
North Kivu	3.4	42.4	11.7	0.2	8.8	26.6	3.9	3	0	100	620
South Kivu	16.2	30.6	11.3	0.6	0.5	25	6.5	5.2	4.2	100	614
Simple average [North and South Kivu]	**9.8**	**36.5**	**11.5**	**0.4**	**4.65**	**25.8**	**5.2**	**4.1**	**2.1**	**100**	**617**
Orientale	4.9	39.7	13.6	1.6	5.1	20.3	7.8	6.8	0.2	100	510
Maniema	0.9	60.7	4.7	1.6	3.8	13.4	10.2	4.7	0	100	211
Katanga	4.3	18.7	9.3	3.8	23.2	14.6	19.1	6.6	2	100	659
Simple average [neighboring provinces]	**3.4**	**39.7**	**9.2**	**2**	**10.7**	**16.1**	**12.37**	**6**	**0.7**	**100**	**460**

Notes: Distribution (in%) of all ambulatory care consultations during the four weeks preceding the interview according to the type of establishment or health provider, according to certain socio-demographic characteristics, DRC 2013-2014. **Source:** DHS,2014.

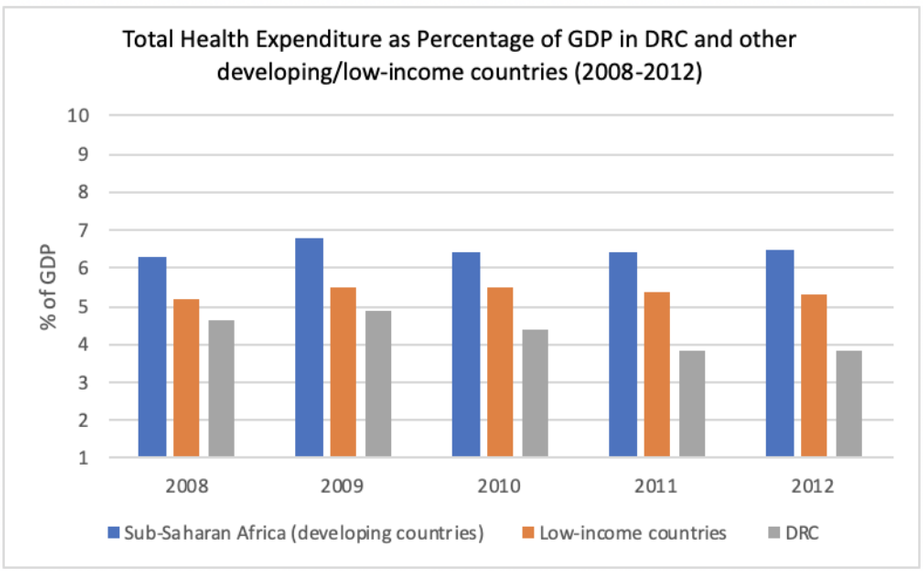
Table 5: Distribution of outpatient consultations by sector, DHS, 2014

Spending was exceptionally challenging to capture in this study due to inability or unwillingness to discuss funding by both clinic staff and key informants. Only one of 7 clinic heads was willing to discuss the financing that their facility receives. Thus, analyzing opportunities for improvements to spending approaches is not possible given the lack of data. Despite reported government and donor investments, focus groups reported widespread dissatisfaction with accessing care, primarily due to out-of-pocket cost barriers. Given this discrepancy, further analysis of overheads, administrative costs, procurement procedures, including potential misconduct, is needed, requiring data transparency. This transparency would also assist in acquiring outside funding.

Chapter 6: Health financing system response for the displaced population

Background

With the end of the Second Congo War in 2003, total health expenditure (THE) as a percentage of the GDP (THE as % GDP) generally increased.[59] This, however, declined from 4.6 percent of GDP in 2008 to 3.8 percent in 2012. In 2012, the DRC spent only US$13 per capita on health, less than 23 other low-income countries in the continent which averaged US$31 per capita.[59] Figure 14 shows a comparison of total health expenditure as a percentage of the GDP for the DRC and other similar countries between the years of 2008 to 2012.



Source: World Bank - Health Public Expenditure Review, 2014.

Figure 14: Total Health Expenditure as Percentage of GDP in the DRC and Other Developing/ Low-Income Countries[59]

As of 2019, the DRC's current health expenditure per capita (current USD) was US$21 and that the domestic general government health expenditure as a percentage of GDP (GGHE as % of GDP) was 0.56 percent.[60] GGHE-D made up less than 16 percent of total health expenditure, while external spending on health and out-of-pocket payments made up 39.8 percent and 39.5 percent of total health expenditure, respectively.[60] These estimates put the country much below the commitments made in Abuja in 2001, as well as Chatham House international targets for government spending which call for governments to spend at least 5 percent of GDP on health and decrease out-of-pocket payments to less than 20 percent of total health expenditures.[61] However, the 2019 national health accounts indicate that domestic funding for health has increased in recent years, with the share of the national budget allocated to health increasing from 7 percent in 2016 to 8.5 percent in 2018. This also puts the country on track to reach its target of a 10 percent allocation for health by 2022.[62]

While recognizing this progress, a resource mapping carried out as a part of the National Health Development Plan (PNDS) reveals a total current financing gap for health of US$416,780,361, representing 23 percent of the total amount needed as of 2019. In terms of the humanitarian response, UNHCR also estimates that the finances needed to respond to the needs of displaced populations and refugees in the DRC corresponded to a gap of approximately US$51 million in 2019.[62]

The considerable gap in government health financing is filled predominantly through user fees, with payments from households providing 40 percent of health spending, 90 percent of which are made through direct out-of-pocket (OOP) payments.[62] A household survey conducted in

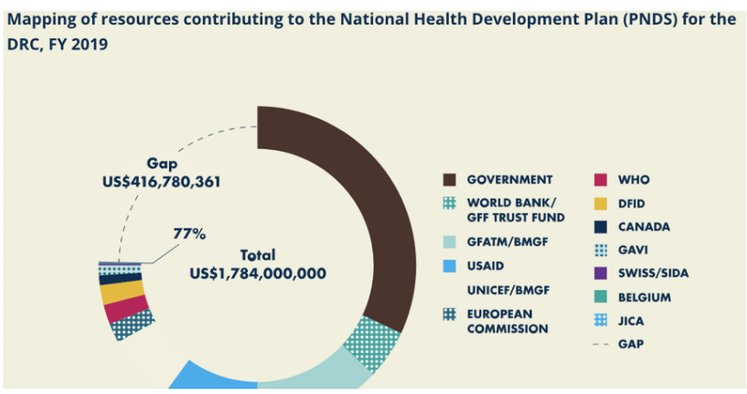


Figure 15: Financing Gap for Health, Global Financing Facility 2019 Annual Report [56]

2014 across several provinces estimates mean of OOP spending for an outpatient care visit to be US$6.8, with 29.4 percent of the population incurring excessive expenditure.[58] The largest proportion of spending went toward fees for drugs and medicines (62.3 percent), with the remainder for consultation (32.7 percent).[58]

As previously discussed, no separate financing system exists for IDPs in South Kivu at the governmental level. Some separate funding schemes exist for the modest number of refugees in the province, but support for the far more numerous IDPs is dependent on programs enacted by donors and INGOs. As discussed by province-level key informants, WHO, OFDA, and some other donors sometimes subsidize the government health facilities in areas acutely affected by influxes of displaced persons or natural disasters. These financial infusions tend to be geographically limited and are usually sustained only temporarily. Of the seven facilities intensely assessed in the field, only one Red Cross facility adjacent to a refugee camp reported funding from a source outside of the government system. Another facility reported having previous INGO support for free services, but those services were discontinued after the INGO left the area.

Social Protection

Data on household expenditures and the financial burden of care are extremely limited. While population-based household surveys are needed to evaluate the extent of financial risk protection and the poverty impact of illness for specific interventions, these have been extremely difficult to carry out in practice due to the instability and lack of access to survey sites. In the National Service Accountability Survey (EPSS), conducted by Kinshasa School of Public Health and the DHS in 2017-2018, non-response rates were considerably higher in North and South Kivu—provinces with the highest internally displaced populations, with rates of 4.1 percent and 12.7 percent, respectively, compared to the national average of 2.2 percent of unreachable facilities.[63]

However, at the population level, an alarming disparity in health insurance coverage is visible, with 12 percent of men and 15 percent of women in the richest quintile reported having health insurance nationally, compared to just 0.7 percent of men and 1 percent of women in the poorest quintile.[64] Current social protection mechanisms are insufficient to protect households against financial risks related to health expenditure, with voluntary community-based health insurance being the only option for sharing health risks for the vast majority of the population.[59] This is even worse for the most vulnerable, with almost no official mechanisms for covering the health costs for those who cannot afford OOP payments. The only support available was rare cases of performance-based financing schemes and a budget line under the Ministry of Social Affairs that covers basic services for the 'indigent', as defined by social surveys by the community; however, this is reportedly rarely used.[64]

Table 6 from the 2014 Demographic and Health Survey shows the percentage distribution of health insurance use by types, with low rates of access to insurance across provinces. Figures are provided for North and South Kivu as well as neighboring provinces for comparison.

Table 6: Distribution of Insurance Type by Province, DHS, 2014[64]

Provinces	Social Security	Other insurance through employer	Community health insurance	Individual private insurance	Other	None
North Kivu	0	2	0.4	0.4	0.2	97.1
South KIvu	0	1.4	4.1	0	0	94.5
Simple average for North and South Kivu	**0**	**1.7**	**2.3**	**0.2**	**0.1**	**95.8**
Orientale	0	1.5	0.7	0	0	97.8
Maniema	0	0.5	0.3	0	0	99.2
Katanga	0.1	5.2	0.9	0	0	93.8
Simple average neighboring provinces	**0**	**2.4**	**0.6**	**0**	**0**	**96.9**
National average (age 15-59)	**0.1**	**3.1**	**1.4**	**1.4**	**0.1**	**95.2**

Overwhelmingly, the majority of the population in the Kivus and neighboring provinces do not have access to health insurance. While community health insurance is extremely limited across the eastern provinces, it is higher in South Kivu, with a small but notable 4.1 percent of the population reporting access. Individual insurance was also a minimal but noteworthy exception, where it was present in North Kivu (0.4 percent) but not elsewhere. Other insurance through employers had a greater presence

among the provinces adjacent to North and South Kivu, especially in Katanga province (5.2 percent), compared to the Kivus. Social security was uniformly low across all the provinces analyzed.

Because Congolese households are highly dependent on direct payments, with almost 90 percent of the household health expenditure going to this type of payment, catastrophic expenditures – regardless of changes to the definition of this term across surveys – present a constant threat. Data from 2013 estimates that catastrophic health expenditures, defined in this case as greater than 10 percent of total household expenditure, may affect almost 13 percent of the population.[59] Effects are worst for those in the poorest quintile of the population, with approximately 16.5 percent experiencing catastrophic expenditure – defined, in this case, as spending at least 20 percent or more of their total household non-food related expenses on health – compared with 10.5 percent of the other quintiles.[62] The formal sector is the object of the most spending, with the average OOP amount spent in the public or private sector being about US$7.0, compared with US$3.9 at informal providers such as traditional healers and street vendors.[59]

Table 7 shows the average annual expenditure per capita for both outpatient/ambulatory care and hospitalization. While the per capita expenditures on hospitalization for North and South Kivu were above the average expenditures in neighboring provinces as well as the national average, this was not the case for outpatient expenditures for more general curative care. Average expenditures for outpatient care in both North and South Kivu were approximately 40 percent lower than the national average expenditure (US$20). Expenditures were also significantly lower than in neighboring provinces (average of US$18.3), and especially compared to Maniema (US$21) and Katanga provinces (US$23). However, with few health insurance mechanisms, the low spending on outpatient care is likely largely due to limited access to health services in these provinces (approximately 13 percent of households in South Kivu have reported failure to consult a doctor mainly due to cost).[65] While cost barriers are likely to affect displaced populations disproportionately due to generally higher health needs and financial constraints, challenges remain across the entire Congolese population in availability and access to services, with quality of care and cost presenting major barriers to care and constricting the demand for services.[60,62]

Table 7: Annual expenditure per capita for outpatient care, DHS, 2014[64]

	Annual avg per capita expenditure on outpatient care ($US)	Annual avg per capita expenditure for hospitalization	Total average annual per capita expenditure	TOTAL POPULATION
Provinces				
North Kivu	13	8	21	4077
South KIvu	11	8	19	3736
Simple average North and South Kivu	**12**	**8**	**20**	**7813**
Orientale	11	6	18	4663
Maniema	21	9	29	1518
Katanga	23	6	29	4860
Simple average neighboring provinces	**18.3**	**7**	**25.3**	**11041**
National average	**20**	**7**	**28**	**46940**

Notes:Average annual expenditure per inhabitant (in US $) for outpatient care and hospitalizations. Source: DHS, 2014.

Unpredictable and unregulated user fees at the health facility level exacerbate challenges to accessing care and provide a source of instability for health facilities. With a heavily fragmented system of external aid in the health sector, user fees may differ from area to area due to the presence of externally funded programs which directly finance a variety of local projects.[66] This is compounded by the fact that the majority of external financing to the health sector goes toward disease-specific programs, such as the Global Fund to Fight AIDS, Tuberculosis, and Malaria (GFATM), and a high-turnover of NGOs working within the country.[67]

For example, an examination of four programs funded by the Office of U.S. Foreign Disaster Assistance (OFDA) and implemented by four international NGOs in North Kivu showed great variability in the costs of delivering services between programs, differences in NGO abilities and approaches to subsidizing costs of care for internally displaced populations, and inconsistent reporting of health care costs across locations. Despite efforts by NGOs to inform health facilities and communities about the temporary

nature of free services, the short duration of engagement between facilities and the NGOs resulted in confusion among community members about the types of services that were covered and negative perceptions due to the unreliability of free services.[67] Uncertainty regarding user fees and availability of free services have frequently resulted in the use of exemptions at the health facility level to cover the costs of services for those unable to pay, including for displaced populations and the economically most vulnerable.

Furthermore, the heavy reliance upon out-of-pocket payments to finance health services results in user fees becoming the main source of income for health facilities and providers, covering both health facility services as well as staff remuneration [68]. Both the general lack of funding as well as frequent delays in government payments to health facilities may additionally result in unauthorized out-of-pocket charges, as facilities attempt to offset funding shortages. This has created a situation whereby substantial overcharging and over-prescribing of medicines, diagnostic tests, and procedures are incentivized in order to inflate health facility revenue and cover costs.[69] Several studies have documented frequent cases of staff selling referral slips to patients, charging patients for services already covered under the flat fee, or treating the flat fee as a minimum recommended charge, on top of which other fees are added.[70] Though deemed illegal by the Ministry of Public Health, a report by the START Center also documented the practice of "*financement ascendant*", whereby a portion of user fees are also saved at the facility level and provided to higher-level health administration.[71]

Major donor funding for health for internally displaced populations

An examination of donor reports and secondary documents reveals that the DRC receives substantial donor funding for health, comprising almost 39 percent of total financing in the health sector[60]. Recognizing the limitations of the government to dramatically increase domestic financing of health in the short- to medium-term, it is also important to note that focus groups conducted in South Kivu of both host and displaced populations suggest ongoing insurmountable out-of-pocket cost barriers to accessing health care despite current investments. As previously mentioned, this discrepancy also raises limitations of existing available data on spending and costs of health services which are needed at the household and facility levels, and which are not captured in donor data.

To examine international donor funding for internally displaced persons, documents and web sites of major donors were consulted. These did not identify any donor projects that were exclusively or primarily dedicated to IDPs. While no national record of IDPs currently exists in the country, a World Bank official indicated that that the Health Cluster coordination group and OCHA in the DRC were trying to compile a list of such persons who might then be entitled to free health care; however, the logistical burden of developing and updating such a list remains a barrier to implementation. Additional challenges in creating such lists include the fear some displaced persons may have regarding being identified, distrust in local authorities, and the potential risks of ineligible individuals being included. While geographic targeting of entitlements was deemed a more effective way to meet the needs of displaced populations, this is not currently considered possible due to limited financing available in the country.

UNHCR identified three provinces (Iruti, North Kivu, and South Kivu) as the ones most affected by displaced persons. Our tabulation of donor financing includes funding for the populations of these provinces in 2021 through both national and sub-national projects by key donors. For multi-component projects, costs were allocated to broader health and to the narrower category of health services. Individual projects are listed in Supplemental Table S1 with estimated population breakdowns in Table S2 and a map in Figure S1.

Table 8 summarizes the resulting estimates of donor annual per capita funding. The annual per capita funding for health services projects is estimated at US$30.29, of which the bulk comes from World Bank financed projects in health, nutrition, and for the COVID-19 response. The WHO 2019 estimates for all health financing in the DRC is US$20.57 per capita, of which US$7.99 is estimated to come from external sources. Our estimates are considerably higher than this figure and may be due to our assumptions when making this tabulation, given the lack of more specific financing data from donors and use of secondary materials, as well as the influx of funding that came with the COVID-19 response.

Table 8: Summary of Funding by Key Donors in DRC Provinces of Ituri, North Kivu, and South Kivu in current USD

Donor	Annual broader health budget per beneficiary	Annual healthcare budget per beneficiary
World Bank	$37.77	$26.05
USAID	$12.03	$3.28
EU ECHO	$0.04	$0.01
UNHCR	$0.22	$0.22
Global Fund	$0.73	$0.73
TOTAL	**$50.79**	**$30.29**

Source: Authors' calculations based on Table S1. See Table S1 for definitions.

Approaches to Address Cost as a Barrier to Healthcare

Given the significant barrier that out-of-pocket cost presents to accessing health services in the DRC—with out-of-pocket payments to health facilities being the main source of financing for health facilities for both migrant and host populations—any approach to ensure access to health services must also reduce the financial burden of seeking care on households. With no formal government insurance system and limited administrative and institutional capacity to run schemes, solutions should also aim to reduce bureaucratic burdens while reaching the most vulnerable populations.[72]

Free health care

Key informants and focus group participants, independent of displacement status, overwhelmingly suggested that the solution to cost as a barrier to healthcare was the provision of free health care. Previous research has shown the use of free care policies in the DRC increases lagging utilization rates during infectious disease outbreaks, and these gains are quickly lost when free care ends.[73] Of the seven facilities included in the data collection, the single facility which provided free care had the highest per capita visitation rate, underscoring the efficacy of this approach. This facility was able to provide free care due to the presence of a sustained external funding source, although as previously discussed, total costs of operation could not be obtained at the clinics visited.

While free care holds the greatest promise toward addressing the gross underutilization of healthcare in eastern DRC, the implementation of such policies faces both political and financial barriers. The lack of financial transparency, as evidenced by the almost universal unwillingness to share financial information for this study, creates an environment permissive to corruption and unpalatable to donors. Additionally, the short-term nature and financial limitations of many prominent international funding streams leads to questions of sustainability for programs seeking to provide free care. Thus, given the political and financial realities in the country, additional approaches for lessening the burden of cost of care must be considered.

Vouchers for pregnant women

One mechanism that has seen success in other countries is voucher programs for vulnerable groups, such as pregnant women and their children or identified poor populations.[74] While more reliable health expenditure data is needed to quantify the burden on households, facility-based infant deliveries, including those requiring cesareans, have been found to be one of the largest reasons for hospital admission for migrant populations, and thereby place high cost burdens on families.[75] Higher exposure to risks for migrant populations, including low antenatal care attendance due to a lack of services with appropriate providers, cost barriers, transportation constraints, or trade-offs with other pressing needs may create needs for more specialized, and thus more costly, care.[75] Providing coverage for such services could help reduce financial burdens on families, while carrying long-term benefits for the population.[76]

Voucher schemes have been successfully used to target vulnerable populations and provide limited free services in the absence of formal social health insurance systems in many countries dealing with migrant populations, including Myanmar[77,78] and Colombia[79], where problems persist with low utilization of services. Such a scheme could be considered for providing limited maternal and child health services, such as delivery (normal and cesarians, if medically indicated) and/or pre- and post-natal care in selected communities with high migrant populations in the DRC. In addition to the financial support

provided through these schemes, vouchers have also been found to carry benefits in providing community support roles, such as health promotion services, which are more critical for at-risk migrant and hard-to-reach populations.[80]

Successful voucher programs require a competent management body, careful monitoring for quality assurance, and a network of voucher distributors or promoters, which could be community health workers or other reliable health workers who are able to travel, to identify communities and connect eligible populations with covered health services.[77,81] In addition, facilities serving voucher recipients must receive appropriate support to successfully manage the influx of patients without decreasing the quality of care. While voucher programs require initial investment and technical support, the set-up and management of these cadres can be conducted at a local or provincial level, making them more manageable and financially palatable for donors.

Community Based Health Insurance (CBHI)
On its path toward universal health coverage, the government of the DRC passed a law in February 2017, selecting a social protection system based on health insurance as the key pathway to affordability of healthcare and financial risk protection for the population. This law gives a large role to mutual health organizations (MHOs), which are non-profit associations of members that provide protection, solidarity, and mutual assistance to its members and their dependents. In principle, MHOs could improve the quality of the health facilities covered under the scheme, although a qualitative study found only mixed success to date.[70]

The law provides that enrollment should be compulsory for formal sector employees, with premiums deducted at the source, and voluntary for informal sector individuals.[82] MHOs were first introduced to the DRC in the 1980s and have rapidly expanded across the country since then.[83.] In order to support these organizations, the government established the National Program for the Promotion of MHOs (PNPMS—*Programme national de promotion des mutuelles de santé)* in 2001.

With this legal and institutional support, MHOs seem to present a key opportunity for scaling up access to health insurance in the DRC, in the absence of a national system. MHOs in the DRC have seen benefits in terms of providing stable sources of revenue to health facilities, enabling providers to restock supplies in a timely manner, enabling cooperation between health providers and authorities, and providing necessary oversight mechanisms to avoid superfluous charges.[70] While national enrollment in MHOs remains low at 1.2 percent, higher coverage can be seen in individual schemes.[70]

These benefits mirror positive experiences with other community-based insurance schemes both within the DRC and in neighboring sub-Saharan African countries. For example, the Bwamanda hospital insurance scheme, launched in 1986 in the northwest of the DRC, resulted in widely acknowledged positive outcomes, including a high enrollment rate within the first month of implementation, membership rates increasing steadily in the following years of implementation, and a maintained social acceptance and interest in the scheme despite sustained ethnic tensions in the region.[65,84]

Similarly, Rwanda has often been cited as an example of successful CBHI implementation, achieving the highest enrollment in health insurance in sub-Saharan Africa, and being able to reach approximately 67 percent of the CBHI targeted population within a decade of implementation (from 2003 to 2013).[84] An analysis of per capita income quintiles indicated similar enrollment among beneficiaries across income categories, suggesting the program successfully reached the economically most vulnerable. In addition, being a CBHI member carried benefits of substantially reducing out-of-pocket expenditures, including expenses related to consultations, drugs, and hospitalizations.[84] Success factors associated with this program included the involvement of local government to create awareness of the program among the population, the availability of low-interest loans, the availability of banking systems; and subsidized funding of premiums to ensure affordability; the latter is particularly important when adapting this approach to the DRC.[84]

Key informant interviews have highlighted the importance of trusted institutions within the community, such as Protestant and Catholic churches, thereby providing further insight into a potential method for enacting MHOs. Use of religious centers as the focal points for collecting insurance contributions from the community and distributing them to health facilities to finance costs of services has seen success in the scale-up of other health financing and social health protection schemes, such as in Cambodia. Although without a large displaced population, Buddhist pagoda-run CBHI schemes that provide capitation payments to health facilities in advance of services (and in some cases reimbursement of user fees) have increased health access for low-income communities, facilitated community participation in health service improvement, and have improved financial sustainability of social protection schemes.[85,86]

Though having the benefit of using flexible forms of implementation, according to the served populations' needs, the most successful of these schemes were based on several key principles, including: (1) connection to an NGO with the capacity to act as a fund manager, (2) offering of insurance that meets user fee and other associated health costs, and (3) inclusion of community support activities, such as health promotion and community participation.[87] In the DRC, churches – through organizations including SANRU and Caritas – have been identified as community-based providers of public health and health information that are trusted by local communities, and have played a critical role in the COVID-19 response and vaccine roll-out. These organizations have received funding from both GAVI and the Global Fund and could expand to support general service delivery and social protection as well.

In the DRC, stability of financing has posed a challenge for many MHOs, with some plans unable to support comprehensive member packages that exceed member contributions; for example, in 2015, only 3 of 23 MHOs in South Kivu could fully honor invoices for healthcare based on member contributions.[70] MHOs were also not found to be effective in curtailing the over-prescribing and charging for services in addition to those covered by the MHO[70], potentially, in part, due to the long history of externally funded free healthcare services in the country. It has been documented that many providers assume that external subsidies contribute to the MHO's ability to pay for care and may seek additional payments for services rendered in addition to health insurance based on users' contributions.[88] To mitigate these issues, several key lessons can be gathered from best-case examples, including (1) having a sound design that takes into account the health needs of the served population and facilitating community participation, (2) having a competent administration system, (3) transparency with finances and oversight mechanisms to help ensure honesty, and (4) ability to anticipate and pre-empt challenges as they arise.[65]

Performance-based financing (PBF)
Another financing modality that has seen positive results in some settings in terms of both health supply and quality has been performance-based financing (PBF). In 2015, the World Bank's Health Systems Strengthening for Better Maternal and Child Health Results Program (PDSS) introduced a strategic purchasing mechanism for the delivery of a package of reproductive, maternal, neonatal, child, and adolescent health (RMNCAH) services, covering approximately a third of the DRC population.[62] Payments were made to facilities based upon the number of services provided as well as the achievement of quality scores. The midline evaluation of the program found considerable benefits in terms of availability, quality, and patient use of reproductive, maternal, newborn, child, and adolescent health (RMNCAH) and nutrition services, with increases in average number of days during which ANC services were provided, and improved availability of essential core commodities.[62] Innovative financing mechanisms for RMNCAH services between 2017 and 2018 were also associated with decreased reliance of facilities on out-of-pocket payments, with such payments decreasing from approximately 70 percent of health spending to approximately 54 percent.[62] With a large amount of existing donor funding coming from these PBF schemes, such schemes could be structured in order to incentivize and support the reduction of out-of-pocket payments at the facility level. For example, performance metrics could require that targeted services be free of charge or subject to a nominal user fee, especially for high-priority services in which other sources of facility income are available. Such policies would, however, require careful monitoring.

Several positive outcomes of PBF schemes have been seen at both the district and the regional levels of the country and could provide potential avenues for increasing quality and delivery of services in provinces with high numbers of displaced populations, including North and South Kivu[62]. However, PBF is not without risks, and previous research has shown enacting PBF programs in settings such as eastern DRC may be challenging.[89] Successful implementation of programs requires bolstered administrative capacity to 1) ensure financial transparency; 2) address the potential perverse incentives to provide clinically unnecessary care as a method for increasing apparent rates of service provision; 3) audit records to ensure accurate reporting on services rendered; and 4) conduct exit interviews of patients to ascertain both formal and informal charges and adherence to performance metrics.

Methods for addressing cost barriers and ensuring improved financing structures to improve health service availability among vulnerable populations vary in efficacy across various contexts, and implementation of these approaches in the DRC will require ongoing monitoring and evaluation. With out-of-pocket payments still remaining very high and a critical barrier to care for a large share of the Congolese population – and especially for costlier inpatient services and for the most vulnerable households – a combination of these suggested approaches may also be best.

Chapter 7: Conclusions and Lessons Learned

As of May 2022, the DRC hosts over 6 million displaced individuals, the majority of whom receive limited to no support from the national government. UN agencies, INGOs, and civil and religious organizations provide some access to services, but capacity and reach remain a challenge as ongoing conflict in the east impedes efforts towards direct service delivery. With no national system to register and support IDPs, most are reliant on the governmental clinic and hospital system to meet their health needs. However, the public healthcare system suffers from limited and often delayed funding which, in conjunction with financial opacity and systemic inefficiencies, causes frequent stockouts, shortages in human resources, and unaffordable out-of-pocket costs ultimately leading to the gross underutilization of services. With the notable exception of provincial-level interviewees, focus groups and key informants consistently asserted that the most efficient and effective way to improve health care access for displaced communities was to provide free care. Potential methods for achieving free service at the point of delivery may include approaches such as vouchers, increased long-term donor support, and registration of IDPs that would include time-limited free access to health services.

IDPs and host communities largely reported similar barriers and concerns throughout the various levels of the health system; the crux of these concerns stemmed from incongruencies between income level and cost of services and rarely were a matter of displacement status. However, to the extent that displacement – particularly repeated dispalcement as frequently seen in this context – exacebates poverty, it is likely that displaced populations may face additional economic vulnerabilities; this disparity may become more visible should the currently meager access to services improve.

The formal health system is not equipped with the staffing, medications, supplies, and fully-functional facilities necessary to address the needs of both the displaced and host populations. Low rates of basic amenities – including electricty, clean water, safe waste disposal, communication technologies, and emergency transit – suggest patients who utilize facilities may not be able to access high-quality care. Furthermore, while facilities reported providing basic communicable and non-communicable disease treatments, the financial barriers to accessing care – including cost of the care itself, fear of detainment if unable to pay, and cost of travel – mean that even facilities with appropriate staff, training, and supplies are unlikely to meet the needs of the population.

Due to the lack of a systematized IDP registration system, it is largely not possible to disaggregate demogrpahic and epidemiological data between host and internally displaced populations. Notably, refugees appear to be registered at higher rates than IDPs and do receive free care when registered. There is evidence that IDPs are not appropriately incentivized, and perhaps disincentivized in some cases, to register. This results in a surveillance system that, overall, is inefficient and insensitive and fails to distinguish between IDP and host communities, except where a financial system is in place to do so. The manner in which resources flow to address health system inadequacies seems to have, in many cases, not resulted in significant improvements, leading to further questions of efficiency and accountability, as well as challenges to the potential long-term sustainability and growth of the health system.

The high cost burden on both host and displaced communities to access healthcare stems from minimal collective financing, low public spending on health care, poor health infrastructure, and violence. With minimal investment in social protection infrastructure, there is almost no collective financing to cover health costs in the country and the bulk of health services are funded through user fees. Social protection mechanisms and universal health care are almost non-existent in the country. Thus, both host and displaced households remain at risk for catastrophic health expenditures from high and unpredictable fee-for-service payments.

There is very limited data on current household health utilization and expenditures which would be needed to quantify and compare the health-related barriers for host and displaced populations. An examination of health and social protection utilization by province reveals that the two of provinces most affected by forced migration—North and South Kivu—fare only slightly worse than neighboring provinces, perhaps in part due to a patchwork of foreign assistance programs. The structure of the DRC health system and over-reliance on fee-for-service payments would also likely create additional barriers to accessing care for displaced populations, who may not have the necessary resources or opportunities to earn to enable them to self-finance care. With widespread issues of overcharging for services, drug stockouts, and lack of enforced set fees for service package reimbursement, displaced populations are also more vulnerable to being taken advantage of, as they may have less knowledge of rules and less social capital with which to negotiate with providers.

Box 1: Recommendations for Donors

Besides providing much needed resources, donors might be able to help with several important structural reforms in the health sector to improve protection and access for both host and displaced populations. These include:

(1) Strengthening norms and enforcing rules around proper and predictable charging for services through regulation, independent auditing, and policy guidance to ensure affordability of care via free services or extremely discounted payments at the service provision level to IDPs and other vulnerable groups;
(2) Strengthening the pharmaceutical supply-chain and helping health facilities to obtain sufficient revenues and drug supply through safe and legitimate means, while enforcing sanctions against them for use of illegitimate means;
(3) Exploring the use of vouchers to target services for the most vulnerable populations;
(4) Expanding and strengthening the few mutual health organizations that exist in the country and ensuring that displaced persons in the area are included in such plans;
(5) On a path toward building a more robust social protection system, supporting the expansion of additional mutual health organizations where there are displaced populations, through targeting of vulnerable populations living in the catchment areas of respected district hospitals and/or health centers;
(6) Reviewing the effectiveness of churches/religious centers as focal points for community health insurance and community support roles; and
(7) Supporting the collection of reliable health utilization and expenditure data for both host and displaced populations.

Ongoing conflict, sustained international exploitation of natural resources, and the increasing impacts of climate change are likely to increase health needs of communities in the DRC in the coming years. It is therefore imperative that the international donor community work closely in conjunction with the national government, religious institutions and civil society, and other key actors to develop long-term, sustainable approaches to strengthening the health system in the DRC to respond to these continuing and developing challenges. No singular, static approach on the part of international and national actors can adequately capture the changing needs of refugee, internally displaced, and host communities, particularly in a context such as the DRC where displacement is fluid and uncertainty is widespread. However, the Big Questions project has highlighted current issues, along with varied and innovative considerations for addressing them (Box 1), in order to share key lessons on how to better prepare for and anticipate both the challenges and opportunities that may arise in the DRC in coming years.

Annex 2: Key Excerpts from Secondary Analysis of DHS (2014) and MICS (2018)

Demographic and Health Survey (DHS) 2014 Analysis

Table 1: Demographic and epidemiologic indicators for DRC and north Kivu, 2008 - 2013

	DRC	North Kivu
Age in Years **weighted mean (95 CI)**	20.3 (20.1 - 20.5)	19.9 (18.9 - 20.8)
Highest Educational Level Attained **weighted proportion**		
no education	33%	37%
primary	38%	38%
secondary	26%	21%
higher	3%	4%
Total	100%	100%
Religion** **weighted column proportion**		
Christian	96.8%	96.7%
Muslim	1.2%	1.6%
Traditional African	0.5%	0.0%
No Religion	0.8%	0.5%
Other	0.7%	1.2%
Total	100%	100%
Household Size **weighted mean**	6.8 (6.7- 6.9)	6.9 (6.3- 7.5)
Urbanicity **percent urban**	38%	47%
Age Specific Fertility Rates **Per 1000 Women**		
15 - 19	135	103
20 - 24	282	264
25 - 29	310	296
30 - 34	268	287
35 - 39	212	224
40 - 44	104	128
45 - 49	25	37
Crude Birth Rate **(total number of births 2013 - 2008)**	18,390 (16,665 - 20,116)	1,464 (984 - 1,944)
Mean Age At First Marriage*	18.1 (18 - 18.26)	18.7 (18.1 - 19.2)
Mean Age At First Birth	19.2 (19.1 - 19.3)	19.2 (18.7 - 19.6)
Mean Age At Childbearing	29.6 (29.4 - 29.7)	30.5 (29.8 - 31.1)
Total Fertility Rate	6.6 (6.5 - 6.7)	6.7 (6.2 - 7.2)
Infant Mortality	58 (53- 63)	34 (25 - 44)
Under-Five Mortality	104 (97 - 111)	46 (33 - 58)
***24% missing , ** only women religion**		

Table 2: Demographic and epidemiologic disaggregated by gender for DRC and north Kivu, 2008 - 2013

	DRC		North Kivu	
	Male	Female	Male	Female
Age In Years **Weighted Mean (95 CI)**	20 (19.8- 20.2)	20.5 (20.3- 20.8)	19.8 (18.9- 20.7)	20 (19.7- 21.3)
Highest Educational Level Attained **Weighted Proportion**				
No Education	29%	36%	34%	41%
Primary	35%	40%	39%	38%
Secondary	31%	21%	24%	18%

Higher	4%	20%	5%	30%
Total	100%	100%	100%	100%
Religion **Weighted Column Proportion**				
Christian	95%	97%	97%	97%
Muslim	14%	1%	2%	2%
Traditional African	1%	1%	0%	0%
No Religion	3%	1%	1%	1%
Other	1%	1%	1%	1%
Total	100%	100%	100%	100%
Infant Mortality	60 (53 - 67)	57 (50 - 63)	30 (16 - 44)	39 (21 - 56)
Under-Five Mortality	108 (98 - 118)	100 (91 - 109)	41 (26 - 56)	49 (28 - 70)

Multiple Indicator Cluster Survey (MICS) 2018 Analysis

Table 3: Demographic and epidemiologic indicators for DRC and north Kivu, 2012 - 2016

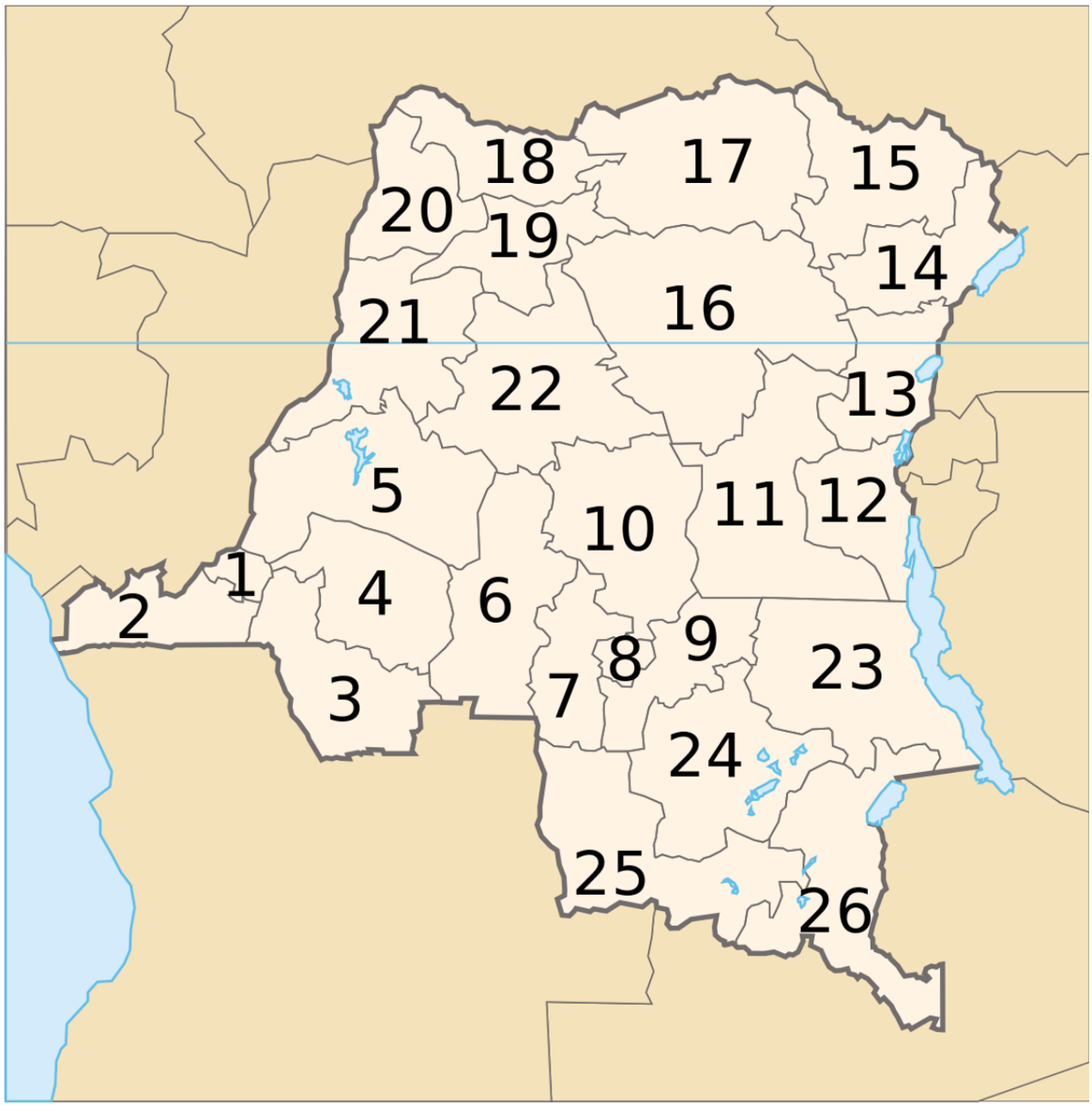
	DRC	**North Kivu**
Age in Years **weighted mean (95 CI)**	20.7 (20.4 - 21)	19.5 (17.2 - 21.7)
Educational Level Attained ** **weighted proportion**		
no education	14%	16%
primary	28%	25%
secondary	52%	49%
higher	6%	10%
Total	100%	100%
Religion*** **weighted column proportion**		
Christian	88.5%	91.4%
Muslim	1.8%	1.7%
Traditional African	2.8%	0.0%
No Religion	2.3%	0.5%
Other	4.6%	7%
Total	100%	100%
Household Size **weighted mean**	5.2 (5.1- 5.3)	6 (5.6- 6.4)
Urbanicity **percent urban**	44%	36%
Age Specific Fertility Rates **Per 1000 Women**		
15 - 19	111	90
20 - 24	250	190
25 - 29	274	276
30 - 34	267	259
35 - 39	213	221
40 - 44	119	121
45 - 49	39	101
Mean Age At First Marriage*	19.1 (18.9 - 19.3)	19 (18.6 - 19.5)
Mean Age At Childbearing	30.4 (30.2 – 30.5)	31.9 (31 - 32.7)
Total Fertility Rate	6.4 (6.3 - 6.5)	6.3 (5.8 – 6.8)
Infant Mortality	43 (36- 50)	10 (3 - 22)
Under-Five Mortality	70 (61 - 79)	26 (16 - 40)
***28% missing , ** only women ***for household head**		

Table 4: Demographic and epidemiologic disaggregated by gender for DRC and north Kivu, 2012 - 2016

	DRC		North Kivu	
	Male	Female	Male	Female
Age In Years **Weighted Mean (95 CI)**	20 .3 (19.9- 20.6)	21 (20.7- 21.4)	18.8 (16.5- 21)	20 (17.7- 22.4)
Educational Level Attained *** **Weighted Proportion**				
No Education	8%	29%	15%	35%
Primary	22%	33%	27%	21%
Secondary	58%	34%	41%	39%
Higher	12%	4%	18%	6%
Total	100%	100%	100%	100%
Religion **Weighted Column Proportion**				
Christian	87.4%	91%	91%	92%
Muslim	2%	1%	2%	1%
Traditional African	3%	2%	0%	0%
No Religion	3%	1%	1%	1%
Other	5%	4%	7%	8%
Total	100%	100%	100%	100%
Infant Mortality	49 (40 - 58)	38 (30 - 46)	7 (3 - 17)	12 (7 - 32)
Under-Five Mortality	76 (67 - 88)	62 (52 - 73)	36 (15 - 58)	16 (6 - 38)
***for household head**				

Annex 2: Supplementary Data on Health Utilization, Costs, and Financing

Supplemental Figure S1. Map Showing Provinces of the DRC[a]



[a]Source: https://commons.wikimedia.org/wiki/File:Provinces_de_la_R%C3%A9publique_d%C3%A9mocratique_du_Congo_-_2005.svg

Supplemental Table S1. Funding by key donors in DRC provinces of Ituri, North Kivu, South Kivu *

* Provinces selected based on UNHCR estimates for displaced populations: https://reporting.unhcr.org/document/587

Line	Donor	Project Name/ Implementing Partner	Project Start	Project End	Project Period (years)	Provinces Targeted	Sector	Estimated share for broader health[d]	Estimated share for health care	Estimated number of beneficiaries[b]	Beneficiary Description	Total project budget, USD[c]	Annual Project Budget[a]	Annual project broader health budget[a]	Annual project healthcare budget[a]	Annual broader health budget per beneficiary	Annual healthcare budget per beneficiary
(1)	World Bank	Health System Strengthening for Better Maternal and Child Health Results Project (PDSS) [f,g]	12/18/2014	6/30/2023	8.5	Equateur (58 HZ), Bandundu (52 HZ), Maniema (14 HZ), and Katanga, North Kivu (TBD), South Kivu (TBD)	Health	100%	100%	23,523,356	Mothers and children under 5	$514,530,000	$60,296,484	$60,296,484	$60,296,484	$2.56	$2.56
(2)	World Bank	Multisectorial Nutrition and Health Project	5/28/2019	7/4/2024	5.1	Haut Katanga, Kassai, Kassai Central, Kongo Central, Kwilu, Lualaba, Nord Kivu, Sud Kivu, and Tanganyika	Health and Nutrition	100%	50%	4,200,000	Pregnant and lactating women, children 0-23 months, children 24-59 months, women 10-19 years	$502,000,000	$98,431,373	$98,431,373	$49,215,686	$23.44	$11.72
(3)	World Bank[1]	DRC COVID-19 Strategic Preparedness and Response Project (SPRP)[h]	6/29/2021	N/A	2[e]	Kinshasa, Haut Katanga, Lualaba, Kongo Central, Haut-Uele, North and South Kivu	Health	100%	100%	8,496,539	Eligible age groups	$200,000,000	$100,000,000	$100,000,000	$100,000,000	$11.77	$11.77
	World Bank					**Subtotal**										**$37.77**	**$26.05**
(4)	USAID[2]	Action contre la Faim (ACF)[i]				Ituri	Agriculture, Food assistance vouchers, Nutrition	33%	0%	4,241,236	Estimated population of Ituri, of which estimated 2,573,100.00 are displaced according to UNHCR	n.a.	$9,800,000	$3,234,000	$0	$0.76	$0.00
(5)	USAID[3]	African Initiatives for Relief and Development (AIRD)				Ituri	Shelter and settlements, WASH	50%	0%	1,920,867	Estimated population of Ituri, of which estimated 2,573,100.00 are displaced according to UNHCR	n.a.	$1,649,995	$824,998	$0	$0.43	$0.00
(6)	USAID[4]	Agency for Technical Cooperation and Development				Bas-Uélé, Ituri, Maniema, Nord-Ubangi, Noth Kivu, South Kivu, Sud-Ubangi, Tanganyika	Agriculture, ERMS, Food assistance, LRIP, humanitarian coordination, Information management, assessments, shelter and settlements, WASH	11%	0%	26,803,503	Estimated population of provinces (see sheet 2)	n.a.	$24,362,924	$2,706,992	$0	$0.10	$0.00
(7)	USAID	CARE				North Kivu	Health, Protection, WASH	67%	33%	6,655,000	Estimated population of provinces (see sheet 2)	n.a.	$3,390,414	$2,260,276	$1,130,138	$0.34	$0.17
(8)	USAID	DanChurchAid				North Kivu	ERMA, Protection, Shelter and Settlements, WASH	25%	0%	4,241,236	Estimated population of provinces (see sheet 2)	n.a.	$3,500,000	$875,000	$0	$0.21	$0.00
(9)	USAID	Danish Refugee Council				Ituri, North Kivu	Agriculture, ERMA, Protection, Shelter and settlements, WASH	20%	0%	10,896,236	Estimated population of provinces (see sheet 2)	n.a.	$4,249,964	$849,993	$0	$0.08	$0.00

Funding by key donors in DRC provinces of Ituri, North Kivu, South Kivu (continued)																	
Line	Donor	Project Name/ Implementing Partner	Project Start	Project End	Project Period (years)	Provinces Targeted	Sector	Estimated share for broader health[d]	Estimated share for health care	Estimated number of beneficiaries[b]	Beneficiary Description	Total project budget, USD[c]	Annual Project Budget[a]	Annual project broader health budget[a]	Annual project healthcare budget[a]	Annual broader health budget per beneficiary	Annual healthcare budget per beneficiary
(10)	USAID	Doctors of the World				South Kivu	Health, Nutrition, Protection, WASH	75%	25%	5,772,000	Estimated population of provinces (see sheet 2)	n.a.	$2,945,000	$2,208,750	$736,250	$0.38	$0.13
(11)	USAID	FHI360				Ituri, North Kivu	Health, Nutrition, WASH	100%	33%	4,535,497	Estimated population of provinces (see sheet 2)	n.a.	$6,495,873	$6,495,873	$2,165,291	$1.43	$0.48
(12)	USAID	Interchurch Medical Assistance				Bas-Uélé, Haut-Katanga, Ituri, Kasai Central, Maniema, North Kivu, South Kivu, Tanganyika, Tshopo	Health	100%	100%	32,129,463	Estimated population of provinces (see sheet 2)	n.a.	$1,860,757	$1,860,757	$1,860,757	$0.06	$0.06
(13)	USAID	International Medical Corps (IMC)				South Kivu	Health, Nutrition, Protection	67%	33%	1,920,867	Estimated population of provinces (see sheet 2)	n.a.	$6,495,000	$4,330,000	$2,165,000	$2.25	$1.13
(14)	USAID	International Rescue Committee (IRC)				Ituri, North Kivu	Health, Protection	50%	50%	3,275,640	Estimated population of provinces (see sheet 2)	n.a.	$3,895,804	$1,947,902	$1,947,902	$0.59	$0.59
(15)	USAID	IOM				Itrui, North Kivu, Tanganyika	HCIM, Shelter and Settlements, WASH	33%	0%	13,378,237	Estimated population of provinces (see sheet 2)	n.a.	$12,500,000	$4,166,667	$0	$0.31	$0.00
(16)	USAID	Internews				Countrywide	Health	100%	100%	82,643,671	Estimated population of provinces (see sheet 2)	n.a.	$500,000	$500,000	$500,000	$0.01	$0.01
(17)	USAID	Medair				Ituri, Noth Kivu	Health, Nutrition, WASH	100%	33%	2,943,461	Estimated population of provinces (see sheet 2)	n.a.	$5,430,652	$5,430,652	$1,810,217	$1.84	$0.61
(18)	USAID	NRC				Ituri, Tanganyika	Agriculture, Protection, Shelter and Settlements, WASH	25%	0%	6,723,237	Estimated population of provinces (see sheet 2)	n.a.	$5,150,000	$1,287,500	$0	$0.19	$0.00
(19)	USAID	Oxfam				Ituri, Maniema, North Kivu, South Kivu, Tanganyika	WASH	100%	0%	21,483,237	Estimated population of provinces (see sheet 2)	n.a.	$4,707,452	$4,707,452	$0	$0.22	$0.00
(20)	USAID	People in Need				South Kivu	Agriculture, Food assistance vouchers, Nutrition	33%	0%	5,772,000	Estimated population of provinces (see sheet 2)	n.a.	$1,650,000	$550,000	$0	$0.10	$0.00
(21)	USAID	Premiere Urgence Internationale (PUI)				North Kivu	Health, Nutrition, WASH	100%	33%	6,655,000	Estimated population of provinces (see sheet 2)	n.a.	$2,000,000	$2,000,000	$666,667	$0.30	$0.10

Funding by key donors in DRC provinces of Ituri, North Kivu, South Kivu (continued)																	
Line	Donor	Project Name/ Implementing Partner	Project Start	Project End	Project Period (years)	Provinces Targeted	Sector	Estimated share for broader health[d]	Estimated share for health care	Estimated number of beneficiaries[b]	Beneficiary Description	Total project budget, USD[c]	Annual Project Budget[a]	Annual project broader health budget[a]	Annual project healthcare budget[a]	Annual broader health budget per beneficiary	Annual healthcare budget per beneficiary
(22)	USAID	Samaritan's Purse				Haut- uele, Ituri, North Kivu, Tshopo	Agriculture, Food assistance, Shelter and settlements, WASH	25%	0%	15,431,733	Estimated population of provinces (see sheet 2)	n.a.	$15,473,982	$3,868,496	$0	$0.25	$0.00
(23)	USAID	SCF				Ituri, Kasai-Oriental	Nutrition, Protection, WASH	67%	0%	6,943,666	Estimated population of provinces (see sheet 2)	n.a.	$7,850,000	$5,233,333	$0	$0.75	$0.00
(24)	USAID	Swiss Interchurch Aid				South Kivu	ERMA, Multipurpose Cash Assistance, WASH	33%	0%	5,772,000	Estimated population of provinces (see sheet 2)	n.a.	$1,155,000	$385,000	$0	$0.07	$0.00
(25)	USAID	Tearfund				Ituri	Agriculture, WASH	50%	0%	4,241,236	Estimated population of provinces (see sheet 2)	n.a.	$4,974,389	$2,487,195	$0	$0.59	$0.00
(26)	USAID	UNICEF				Countrywide	HCIMA, Nutrition	50%	0%	82,643,671	Estimated population of provinces (see sheet 2)	n.a.	$11,636,237	$5,818,119	$0	$0.07	$0.00
(27)	USAID	UNICEF				North Kivu	WASH	100%	0%	6,655,000	Estimated population of provinces (see sheet 2)	n.a.	$500,000	$500,000	$0	$0.08	$0.00
(28)	USAID	USAID Global Health Bureau				Countrywide	Nutrition	100%	0%	82,643,671	Estimated population of provinces (see sheet 2)	n.a.	$500,000	$500,000	$0	$0.01	$0.00
(29)	USAID	Welthungerhilfe (WHH)				North Kivu	Agriculture, WASH	50%	0%	6,655,000	Estimated population of provinces (see sheet 2)	n.a.	$1,471,000	$735,500	$0	$0.11	$0.00
(30)	USAID	World Food Programme (WFP)				Countrywide	HCIMA, Nutrition	50%	0%	82,643,671	Estimated population of provinces (see sheet 2)	n.a.	$39,254,638	$19,627,319	$0	$0.24	$0.00
(31)	USAID	World Vision				North Kivu	WASH	100%	0%	6,655,000	Estimated population of provinces (see sheet 2)	n.a.	$1,744,206	$1,744,206	$0	$0.26	$0.00
	USAID	**Subtotal**														**$12.03**	**$3.28**
(32)	EU ECHO[5]	Humanitarian Aid			1		Food, Nutrition, Shelter, Heathcare, WASH, Education	50%	17%	19,600,000	Estimated population needing humanitarian assistance, mainly in East of country	n.a.	$1,744,206	$872,103	$290,701	$0.04	$0.01
	EU ECHO	**Subtotal**														**$0.04**	**$0.01**

Funding by key donors in DRC provinces of Ituri, North Kivu, South Kivu (continued)

Line	Donor	Project Name/ Implementing Partner	Project Start	Project End	Project Period (years)	Provinces Targeted	Sector	Estimated share for broader health[d]	Estimated share for health care	Estimated number of beneficiaries[b]	Beneficiary Description	Total project budget, USD[c]	Annual Project Budget[a]	Annual project broader health budget[a]	Annual project healthcare budget[a]	Annual broader health budget per beneficiary	Annual healthcare budget per beneficiary
(33)	UNHCR[6]				1	Countrywide	Protect: Attaining favourable protection environments (26%) Assist: Realizing rights in safe environments (49%) Empower: Empowering communities and achieving gender equality (14%) Solve: Securing solutions (11%)	10%	10%	7,100,000	Estimated population in need of assistance 2022	n.a.	$15,362,833	$1,536,283	$1,536,283	$0.22	$0.22
	UNHCR	**Subtotal**														**$0.22**	**$0.22**
(34)	Global Fund[7]	Impactful interventions against malaria (COD-M-MOH)	1/1/2021	12/31/2002	3	Priority health zones countrywide	Health	100%	100%	82,643,671	National popoulation	$8,885,545	$2,961,848	$2,961,848	$2,961,848	$0.04	$0.04
(35)	Global Fund	Scale up of HIV Prevention (COD-H-MOH)	1/1/2021	12/31/2002	3	Priority health zones countrywide	Health	100%	100%	82,643,671	National popoulation	$6,980,884	$2,326,961	$2,326,961	$2,326,961	$0.03	$0.03
(36)	Global Fund	Impact against TB (COD-T-MOH)	1/1/2021	12/31/2002	3	Priority health zones countrywide	Health	100%	100%	82,643,671	National popoulation	$7,410,293	$2,470,098	$2,470,098	$2,470,098	$0.03	$0.03
(37)	Global Fund	RSSH investments towards Sustainable Development Goals (COD-S-MOH)	1/1/2021	12/31/2002	3	Priority health zones countrywide	Health	100%	100%	82,643,671	National popoulation	$10,414,895	$3,471,632	$3,471,632	$3,471,632	$0.04	$0.04
(38)		Effective and impactful investments against TB and HIV (COD-C-Cordaid)	1/1/2021	12/31/2002	4	Priority health zones countrywide	Health	100%	100%	82,643,671	National popoulation	$107,169,248	$26,792,312	$26,792,312	$26,792,312	$0.32	$0.32
(39)		Effective and impactful interventions aginsat malaria (COD-M-SANRU)	1/1/2021	12/31/2002	5	Priority health zones countrywide	Health	100%	100%	82,643,671	National popoulation	$111,605,823	$22,321,165	$22,321,165	$22,321,165	$0.27	$0.27
	Global Fund	**Subtotal**														**$0.73**	**$0.73**
	TOTAL															**$50.79**	**$30.29**

Notes and Assumptions:

[a] For World Bank and ECHO projects, annual amount is total project budget divided by project years. For USAID projects, amount is budget for FY 2021.

[b] Number of beneficiaries is the targeted number in lines 2, 3, 32, and 33 ; the number of inhabitants in the targeted provinces in lines 4-31; and the actual number in line 1. For USAID projects, number of inhabitants are estimated based on the number of registered voters in 2005, assuming that they represent 33% of the total population in each province.

[c] For ECHO, UNHCR, and USAID only the 2021 budget was available, so the total project amount was not available (n.a.)

[d] For projects lacking more detailed data, we assumed that each sector received an equal share of the project budget (column H). For UNCHR (row 33), we applied UNHCR's estimated share for health spending it its request to the actual fiscal year spending

[e] Project period estimated based on National Deployment and Vaccination Plan (NDVP), with a goal of reaching 60% vaccination nationwide by 2024.

f Source: https://documents.worldbank.org/en/publication/documents-reports/documentdetail/099045001072233927/disclosable0ve0555000sequence0no015

[g] Source: https://documents.worldbank.org/en/publication/documents-reports/documentdetail/797381468248430170/congo-health-system-strengthening-for-better-material-and-child-health-results

h Source: https://documents1.worldbank.org/curated/en/525281636568683551/pdf/Disclosable-Version-of-the-ISR-DRC-Multisectoral-Nutrition-and-Health-Project-P168756-Sequence-No-04.pdf ; https://documents1.worldbank.org/curated/en/826401558117375531/pdf/Congo-Democratic-Republic-of-Multisectoral-Nutrition-and-Health-Project.pdf

i Source: https://documents1.worldbank.org/curated/en/525281636568683551/pdf/Disclosable-Version-of-the-ISR-DRC-Multisectoral-Nutrition-and-Health-Project-P168756-Sequence-No-04.pdf ; https://documents1.worldbank.org/curated/en/826401558117375531/pdf/Congo-Democratic-Republic-of-Multisectoral-Nutrition-and-Health-Project.pdf

[1] Source: https://documents1.worldbank.org/curated/en/602061625277685570/pdf/Congo-Democratic-Republic-of-COVID-19-Strategic-Preparedness-and-Response-Project-Additional-F

[2] Source: https://reporting.unhcr.org/document/587

[3] Source: https://www.usaid.gov/sites/default/files/documents/2021-12-10_USG_Democratic_Republic_of_the_Congo_Complex_Emergency_Fact_Sheet_1.pdf

[4] Source: https://en.wikipedia.org/wiki/Provinces_of_the_Democratic_Republic_of_the_Congo

[5] Source: https://ec.europa.eu/echo/where/africa/democratic-republic-congo_en; https://ec.europa.eu/international-partnerships/system/files/mip-2021-c2021-9389-democratic-republic-congo-annex_fr.pdf; indicative financing to human development =40% of total budget

[6] Source: https://data2.unhcr.org/en/documents/details/91110; https://reporting.unhcr.org/democratic-republic-of-the-congo-funding-2022; https://reporting.unhcr.org/drc

[7] Source: https://data.theglobalfund.org/location/COD/grants

Supplemental Table S2. DRC Population by Province[a]

Number[b]	Province	Population	Link to source
1	Kinshasa	11,575,000	https://en.wikipedia.org/wiki/Kinshasa
2	Kongo Central	5,575,000	https://en.wikipedia.org/wiki/Kongo_Central
3	Kwango	1,994,036	https://en.wikipedia.org/wiki/Kwango
4	Kwilu	5,174,718	https://en.wikipedia.org/wiki/Kwilu_Province
5	Mai-Ndombe	1,768,327	https://en.wikipedia.org/wiki/Mai-Ndombe_Province
6	Kasaï	3,199,891	https://en.wikipedia.org/wiki/Kasai_Province
7	Kasaï-Central	2,976,806	https://en.wikipedia.org/wiki/Kasa%C3%AF-Central
8	Kasaï-Oriental	2,702,430	https://en.wikipedia.org/wiki/Kasa%C3%AF-Oriental
9	Lomami	2,048,839	https://en.wikipedia.org/wiki/Lomami_Province
10	Sankuru	1,374,239	https://en.wikipedia.org/wiki/Sankuru
11	Maniema	2,333,000	https://en.wikipedia.org/wiki/Maniema
12	South Kivu	5,772,000	https://en.wikipedia.org/wiki/South_Kivu
13	North Kivu	6,655,000	https://en.wikipedia.org/wiki/North_Kivu
14	Ituri	4,241,236	https://en.wikipedia.org/wiki/Ituri_Province
15	Haut-Uele	1,920,867	https://en.wikipedia.org/wiki/Haut-Uele
16	Tshopo	2,614,630	https://en.wikipedia.org/wiki/Tshopo
17	Bas-Uele	1,093,845	https://en.wikipedia.org/wiki/Bas-Uele
18	Nord-Ubangi	1,482,076	https://en.wikipedia.org/wiki/Nord-Ubangi
19	Mongala	1,793,564	https://en.wikipedia.org/wiki/Mongala
20	Sud-Ubangi	2,744,345	https://en.wikipedia.org/wiki/Sud-Ubangi
21	Équateur	1,626,606	https://en.wikipedia.org/wiki/Province_of_Équateur
22	Tshuapa	1,316,855	https://en.wikipedia.org/wiki/Tshuapa
23	Tanganyika	2,482,001	https://en.wikipedia.org/wiki/Tanganyika_Province
24	Haut-Lomami	2,540,127	https://en.wikipedia.org/wiki/Haut-Lomami
25	Lualaba	1,677,288	https://en.wikipedia.org/wiki/Lualaba_Province_(proposed)
26	Haut-Katanga	3,960,945	https://en.wikipedia.org/wiki/Haut-Katanga_Province
	Grand total	82,643,671	

[a]Numbers are latest estimates available, generally derived from voting information. Source: https://en.wikipedia.org/wiki/Provinces_of_the_Democratic_Republic_of_the_Congo.

[b]Numbers on map (Supplemental Figure S1) show locations of provinces.

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